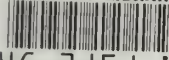


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# *The Journal of The* **SOUTH CAROLINA** *Medical Association*

VOLUME LII

JANUARY, 1956

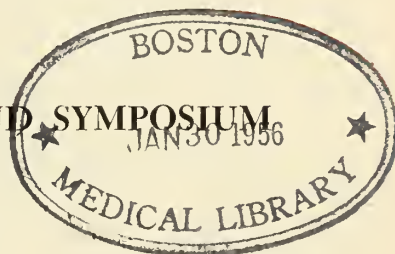
NUMBER 1

SOUTH CAROLINA HEART ASSOCIATION

SEVENTH ANNUAL MEETING AND SYMPOSIUM

COLUMBIA, S. C.

FEBRUARY 13, 1956



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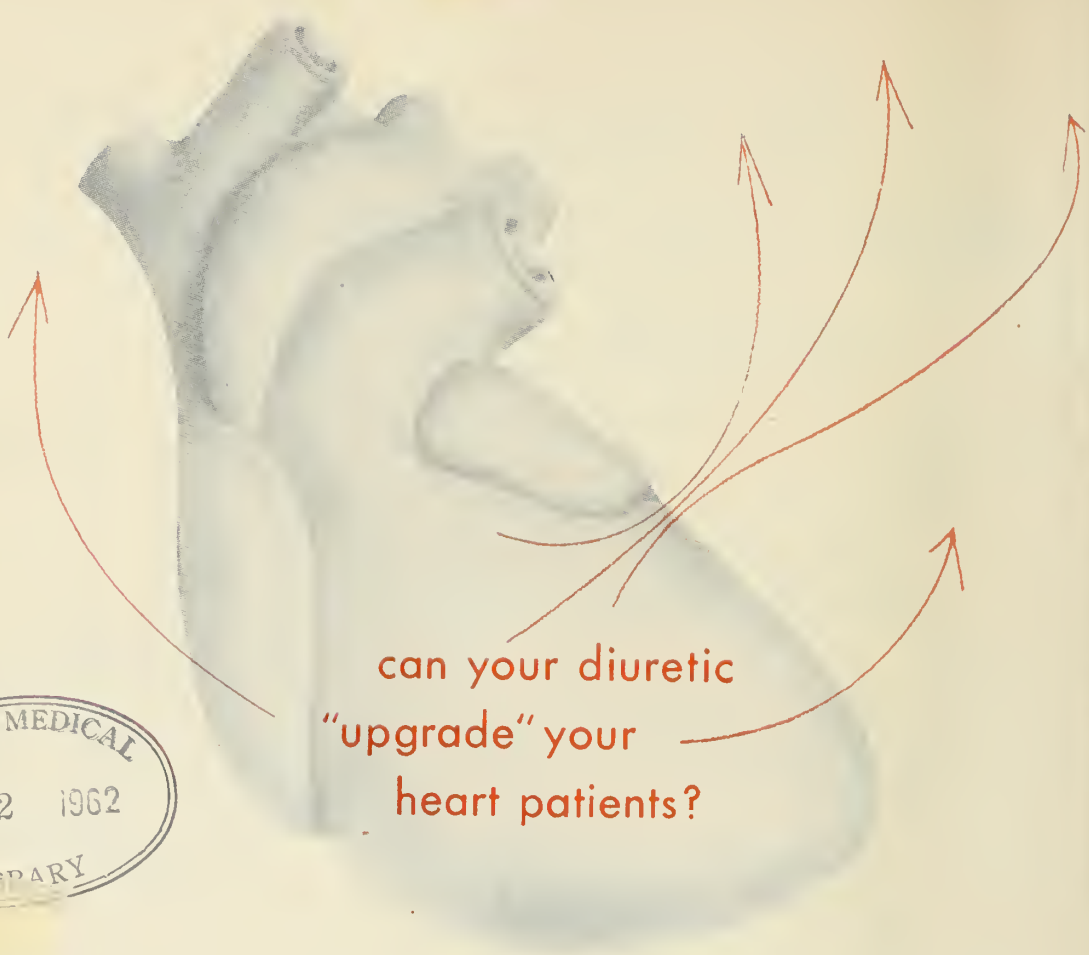
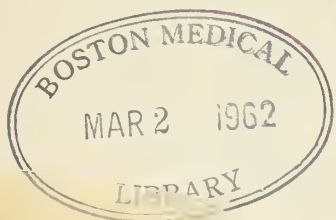
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# The Journal

of the

## South Carolina Medical Association

VOLUME LII

January, 1956

NUMBER 1

### CHRONIC LUNG DISEASE

A CONFERENCE\*

*Participants:*

DR. JOHN A. BOONE, DR. DAVID B. GREGG, DR. KELLY T. MCKEE, DR. EDWARD F. PARKER

**D**r. McKee: The management of chronic lung disease has seemed to be a subject of sufficient importance to justify discussion in a combined staff conference. I have invited Dr. Parker, Dr. Gregg and Dr. Boone to take part in the discussion.

When I speak of chronic lung disease I refer to non-tuberculous disease of the lungs, and more particularly to the disorders which we wish to consider this morning, pulmonary emphysema and pulmonary fibrosis with emphysema. It is these disorders which are more likely to produce the characteristic picture of pulmonary insufficiency about which our discussion will center. In pulmonary emphysema we find in most instances some history of, or some associated chronic bronchial infection. This produces, we think, some degree of obstruction in the bronchial tree. Associated with this we may see an increase in intra-pulmonary pressure, dilation of the alveoli, eventually fragmentation of the alveolar septa with consequent considerable enlarging of alveolar air spaces, some of which communicate inadequately with the airways. As a consequence of this, there is a tendency for the mixing of gases within the lungs to be very poor and a tendency therefore for the oxygen tension to be lower than it should be and for the carbon dioxide tension to be higher than it should be in the alveolar space. With fragmentation of the alveoli, the total volume of blood flow through the lungs is perhaps decreased as a result of decreasing the available

capillary space in the pulmonary circuit. Increased intra-pulmonary pressure contributes to lowering and flattening of the diaphragm and to the increased anteroposterior diameter of the chest, which we see in chronic pulmonary emphysema. All of these changes are related to decrease in elasticity of the lung parenchyma. Whether there are other factors besides bronchial obstruction operating to produce emphysema, such as nutritional vascular deficiency, is perhaps open to some question. That particular theory of the causation of pulmonary emphysema has been promulgated in recent years and its importance in the occurrence of pulmonary emphysema is as yet uncertain.

Pulmonary function tests in hypertrophic emphysema reveal a decreased vital capacity, a markedly decreased maximal breathing capacity, and a moderately to markedly increased residual air, perhaps an increase in total lung volume, evidence of poor intra-pulmonary mixing of gases as measured by nitrogen wash-out study with the patient breathing 100% oxygen, and in advanced pulmonary emphysema, evidences of carbon dioxide retention and of anoxia. There may be respiratory acidosis as demonstrated by lowering pH and there may be pulmonary hypertension which is demonstrable by cardiac catheterization and demonstrable clinically by the presence of cor pulmonale in the very advanced disease state.

I am going to present very briefly a case history of a patient with chronic lung disease and review his hospital course when he was recently hospitalized. The patient is a 57 year

\*This is an edited version of a recorded combined staff conference held at the Medical College of South Carolina in the spring of 1955.

old man with no previous history of exposure to anything which might produce chronic lung disease; no history of bronchial asthma, but a history of chronic bronchitis and of diagnosed emphysema a number of years prior to his hospitalization at Roper Hospital on December 9, 1954. In the past he had had a number of bouts of right-sided heart failure (cor pulmonale). His present illness began some two to three weeks prior to admission at which time he developed a flare-up in his bronchitis with considerable sputum, increase in dyspnea, and over a period of several days he had developed ankle edema and had had to sit up to sleep at home. His attending physician had put him on an oral antibiotic, erythromycin I believe, and he had shown a little improvement, but had continued to have a great deal of respiratory distress and at the time of admission to the hospital was quite dyspneic, had very definite cyanosis, and had obvious ankle edema. In other words, he had the typical picture of cor pulmonale. On admission he had a very definite polycythemia with a volume packed cells of 59, about 6 1/2 million red cells, 17 grams of hemoglobin, and a slightly elevated white count. The polycythemia is quite unusual in pulmonary emphysema. He had CO<sub>2</sub> combining power of 73 vols. per cent. He had right axis deviation on his electrocardiogram. His treatment in the hospital included digitalization, mercurial diuretics, oxygen intermittently by inhalation with intermittent positive pressure apparatus, oral aminophylline, Isuprel by nebulizer, and Diamox which would act as a diuretic and also help reduce his CO<sub>2</sub> combining power. Over a period of time in the hospital he also had two phlebotomies. He was continued on antibiotics (erythromycin). On this treatment he improved considerably over a period of ten days, his edema disappeared, he lost weight from 168 to 144 pounds, he became able to lie down and sleep at night, whereas he had had to sit up in a chair by the side of the bed and at the time he left the hospital he was greatly improved. You can see in the x-ray that there has been some decrease in his heart size. There does not seem to have been much change in the pulmonary parenchyma as far as this x-ray is concerned.

Now I want to make some general comment on the management of chronic pulmonary disease. We should remember in the treatment of pulmonary emphysema that any aggravating factors should be removed as early as possible. If there is any obvious allergy this should be treated in an attempt to remove any bronchospasm which can be controlled. If there is any sinus infection it should be treated because it probably contributed to the bronchospastic disease and to the continuation of any chronic bronchitis. The presence of chronic bronchitis or of pulmonary infection other than bronchitis should be recognized and should be treated appropriately with the correct antibiotics if facilities for determining bacteriologic sensitivities are available. If not, it is probably best to use a broad spectrum antibiotic or a combination of penicillin and streptomycin. Symptomatic therapy includes the use of cough sedatives for troublesome coughs, but not any cough sedation which will interfere with the bringing up of sputum which needs to be gotten out. The use of expectorants, potassium iodide, ammonium chloride, and ipecac may be of some value also. Broncho-dilators should be used in practically all instances, even though there appears to be no obvious bronchospasm on auscultation. There is practically always some degree of bronchospasm and any relief of that that can be afforded will improve ventilation. The broncho-dilators include Isuprel by nebulizer, perhaps aminophyllin by mouth, rectal suppository, or intravenously, ephedrine - containing compounds such as ephedrine and a barbiturate, Tedral, and other preparations of that sort. Cortisone or ACTH does have a place in the treatment of these patients, particularly if there is any element of bronchospasm. Exactly how effective cortisone or ACTH will be in the control of the emphysematous patient that does not have any obvious bronchospasm, I don't know. It probably will give the patient a feeling of well-being and is generally recognized as being helpful. We don't always use it. Oxygen should be used, if it is used judiciously. It is a mistake to put these patients on oxygen constantly. It should be used intermittently either by nasal catheter or by mask. It should be used ex-

tremely cautiously in the presence of respiratory acidosis inasmuch as in that situation the only stimulus to breathing is anoxia, and if the anoxia is relieved by the use of nasal or mask oxygen, ventilation may become completely inadequate and carbon dioxide intoxication will occur. The patient will go into coma under those circumstances. If it is used intermittently, it can be a great help to the patient and with the passage of time the quantity used and the duration of time it can be used may be safely increased. The use of intermittent positive pressure breathing apparatus seems to be beneficial in some cases. In the few cases in which we used it, it seemed more helpful where there was some definite evidence of pulmonary fibrosis as well as emphysema. Where there is simply severe pulmonary emphysema without much pulmonary fibrosis it did not appear to be nearly as useful.

Breathing exercises apparently are of very definite value in long term treatment, the main function being to increase the ventilation of the lungs and to decrease the dead space in the lungs. The application of pressure on the abdomen on expiration so that the diaphragm will be forced upward helping to empty the lungs will allow for entrance of a greater volume of air on inspiration and thus improve the flow of air and also increase the exhalation of stale air from over-filled lungs.

Next on the list is pneumo-peritoneum and I want Dr. Gregg to talk with you about that because he has had some experience with it, and I think he can discuss it much more satisfactorily.

*Dr. Gregg:* Pneumo-peritoneum is one of the measures that can be used in emphysema with some benefit to a great many patients. We have not found any hard and fast rule to tell which patients are going to be benefitted and which are not, but we feel that most patients with simply hypertrophic emphysema, not complicated by too much infection and fibrosis, without fixation of the diaphragm, are the ones who will be most apt to benefit from the pneumo-peritoneum. Here you will see three films that were taken, one at inspiration and one at expiration. You can see in those two films the diaphragm appears at the same level;

there may be a centimeter or so difference if you measured it accurately, but from the appearance of these films the diaphragm is practically stationery on inspiration and expiration and therein lies a mechanical difficulty in respiration, the diaphragm being the major muscle of respiration. If that diaphragm can be mobilized again, the patient's ventilation can be greatly helped. By injection of air into the peritoneal cavity we take away the gravitational pull of the heavy liver and other abdominal viscera from the under side of the diaphragm, we increase the intra-abdominal pressure and get some elevation of the diaphragm, with the cooperation of the patient we can have him use that diaphragm more efficiently, improving the ventilation. Here is a film taken about a week later on this patient. Air was introduced into the peritoneal space and you will see that the diaphragm is 3-4 cms. higher. If we take expiratory and inspiratory film we find that there is approximately three or four cms. of mobility of the diaphragm. It improves ventilation and helps the patient get air in and out of his chest. Not only that, but one of the features of pulmonary emphysema is the lack of, or decrease of, negative pressure in the thoracic cavity with the consequent defect in return flow of blood. This increases venous pressure. Patients who benefit from pneumo-therapy will thus show a decrease in the venous pressure. This patient had such an increase in the venous pressure that he had obvious distention of the veins in his neck, arms, and abdominal wall. After the pneumo-peritoneum was induced there was a remarkable decrease in the prominence of peripheral veins.

I would like to show you one other film. This patient as far back as 1951 shows the typical picture of hypertrophic emphysema that you just saw a while ago. This patient has been disabled for almost a year with just pure dyspnea. Pneumo-peritoneum was induced and inspiratory film and expiratory film after the induction of air show the mobility of the diaphragm. Here is a film taken four years later showing that this patient had been maintained on pneumo-therapy for a period of four years. He has been able to return to work and has

been much improved since that time—getting enough pulmonary ventilation with the aid of pneumo-therapy to keep him on the job.

*Dr. McKee:* Dr. Gregg, are there any patients with emphysema who would not be considered candidates for pneumo-peritoneum, or any contraindications to it?

*Dr. Gregg:* The only contraindications are those patients with such extreme pulmonary fibrosis and fixation of the diaphragm that they won't get any more mobility of the diaphragm. In the past we have actually given some of these a therapeutic trial and it does not take very long to tell whether they are going to get any mobilization of the diaphragm and whether they are going to get any benefit from it.

*Dr. McKee:* What percentage of the patients do you think get good results?

*Dr. Gregg:* I would say in our experience that it is certainly over 50%.

*Dr. McKee:* It is interesting that if these patients are studied before and after the induction of pneumo-peritoneum there does not seem to be any very good correlation between the improvement in the patient's condition symptomatically, and the improvement as demonstrated by pulmonary function tests. For that reason it has been felt by some that it is not beneficial, but after talking with Dr. Gregg about it I am much more encouraged about its value. I think that we will certainly use it more often.

We next want to consider the surgical management of pulmonary emphysema and the situations in which surgery is useful. I would also like to ask Dr. Parker to comment on the recent theory that nutritional inadequacy as a result of inadequate flow through the bronchial arteries does have some effect in producing pulmonary emphysema.

*Dr. Parker:* What has always impressed me in looking at x-rays of the chest in a person with emphysema is the small size of the heart. I just mention that because my idea of the mechanism of the difficulty that these people have is that normally the terminal bronchiole ends in a number of air sacs and each of the walls of the air sacs has capillaries in it. With disruption of the alveolar walls the diffusion

area will be reduced tremendously; thus even if the patient had normal, or nearly normal, ventilation the air is not being utilized because it is not exposed to the proper diffusion area. In pneumo-peritoneum, in addition to restoration of mobility of the diaphragm to improve exchange, I have wondered whether or not there might be an improved relationship between the inspired air and the diffusion area. That is my concept of the mechanics of the difficulties which people with generalized emphysema have. Surgically, I don't know of anything that is of any value routinely.

There is not much known about bronchial arterial flow except to say that the bronchial arteries are of very respectable size in patients with emphysema. They are sufficiently large and can bleed profusely so that a patient may bleed to death from one easily. Also we must remember that a patient can bleed to death from an intercostal artery. The bronchial artery is distinctly larger than the average intercostal. In cases of chronic pulmonary infection, such as is present in many of these patients with diffuse emphysema there is increased vascularity throughout the bronchial arterial tree. We are apt to see this at the operating table. Hemorrhage from a bronchial artery or intercostal artery, or any systemic artery, or any pulmonary vessel for that matter, may be quite severe because if the blood does not clot immediately the negative intrathoracic pressure is likely to suck the blood right out of the vessel into the pleural cavity.

Operations for generalized emphysema include the removal of sympathetics or parasympathetics. In the *Journal of Thoracic Surgery* several years ago, an extremely well-known physiologist reported a complete review of our knowledge concerning the autonomic control of the bronchi. Unfortunately, there is very little known, and much of our knowledge is conflicting. Some operations for emphysema have involved sympathectomy and some have involved para-sympathectomy. About the same percentage of good results, or perhaps I should say poor results, have been reported from each. In the treatment of chronic asthma with emphysema, the best results have been re-

ported from sympathectomy. There is not enough physiological knowledge at present to give a rational basis for operation as far as the autonomic system is concerned.

Surgical therapy has real value in the treatment of localized emphysema. I have one case here which I thought you might like to see in that regard. This is a woman who is about 35 years of age. We first saw her in 1950. She had a very marked pectus excavatum which may have been responsible for some of her cardio-respiratory difficulty. In addition, she had rather extensive paralysis from poliomyelitis so that she was quite deformed. She had a history of chronic dyspnea and one can notice from this film the presence of a large area of emphysema in the right side of the chest. That became worse through the years. We made bronchograms and one can see that there is a lack of filling in the mid-portion of the right lung. You will remember that in known or suspected chest disease, a single x-ray of the chest is not sufficient. On the oblique film one sees that the upper lobe bronchi are compressed against the superior part of the mediastinum and the bronchi in the lower portion of the lung are compressed toward the inferior portion of the mediastinum. Obviously, there is quite a large area of emphysema in that lung. She was operated upon and a massive area of emphysema was removed. Although this emphysematous area had bronchi in it which were dilated and filled with mucus, there was no communication with that main bronchial tree.

This brings up one other mechanism of difficulty in these patients. That is the collateral alveolar air circulation. It increases the pressure in emphysematous areas of lung. Undoubtedly, this woman was having air enter an emphysematous area in such a way that the access was easier than the egress. Positive pressure would result in partially vitiating the negative pressures normally present in both pleural cavities. Within a few days after operation she showed remarkable improvement. Her family observed that it was the first time she had breathed normally since birth. We see this type of emphysema particularly in children. The middle lobe, for some reason, is very com-

monly affected. With a large emphysematous middle lobe, a child may have extreme respiratory difficulty. Often improvement is spontaneous. Sometimes operation must be undertaken and it is usually with the most gratifying result.

Bronchograms may be helpful in demonstrating whether or not the emphysema may be sufficiently localized so that surgical excision may be considered as a method of therapy.

This is the x-ray of a man whom Dr. McKee has recently seen.

*Dr. McAlpine:* This patient complained of shortness of breath. He was sent down here to the Heart Clinic with the diagnosis of rheumatic heart disease and mitral stenosis. We did not think he had rheumatic heart disease. He had had a previous history of rheumatic fever, but we felt that most of his dyspnea was on the basis of emphysema. We made pulmonary function studies and they showed a residual air somewhere around 3,000 ml. Maximum breathing capacity was greatly impaired. Vital capacity was about 80% of normal.

*Dr. Parker:* The relation between the residual air and total volume was 51% and of course it should not be greater than 25%. The chest x-ray as you can see shows an area of emphysema, particularly on the right. We were wondering earlier this morning what could be offered to this man. I do not have the impression looking at this film that the abnormality is limited to these areas. The rest of the lung looks somewhat emphysematous, particularly on the left. I have the impression as I did with the previous patient on whom we did the bronchograms that the emphysema is diffuse, but I do believe, with nothing else to offer him, that bronchograms might be of value in helping us to decide. In other words, if there are pressure changes in these bullae which compress normal lung, the bullae can be removed and the patient can be improved tremendously. Grossly, the left lung does not show any striking change, but we are often quite impressed by the lack of correlation between the patient's symptoms, the physical signs, and the x-ray findings.

*Dr. McKee:* A very distressing complication of chronic lung disease is the development of cor-

pulmonale. Patients who do develop cor-pulmonale may have repeated bouts of it. When acute infection which seems to be responsible for the occurrence of the right heart failure is controlled, the problem often responds adequately to therapy. Dr. Boone will talk to us a little bit about the treatment of cor-pulmonale.

*Dr. Boone:* I don't think there is any great mystery about cor-pulmonale, the main thing being to recognize it when you see it, because in general the treatment is highly unsatisfactory. The right ventricle is normally very thin-walled in comparison to the left ventricle and when too heavy a load is put on the right ventricle in these various pulmonary diseases, it fails very much more easily, and it is very much more difficult to control this failure than it is in failure of the thicker, more powerful left ventricle.

We have the embarrassing experience ever so often in our heart clinic of finding someone who has been treated unsuccessfully for dyspnea thought to be due to heart disease for anywhere from months to years. Perhaps for some reason he happens to have a chest film and we discover that he has the small heart that Dr. Parker called our attention to, which is particularly characteristic of pulmonary emphysema. Those patients may have had dyspnea because of their emphysema and they may even have had edema because of their varicose veins, but they certainly did not

have heart failure. It is quite important to recognize that syndrome before there is any development of cor-pulmonale. Once cor-pulmonale appears, you have the usual signs of right-sided heart failure, and they are treated simply like right-sided heart failure which is the ultimate end-result of left-sided heart failure in the usual case. The patient is digitalized to the best of our ability, but he never comes back quite satisfactorily as we expect in the average case of the left ventricle patient.

The important thing in handling patients with cor-pulmonale is to try to do all you can about the disorder which has caused the right ventricle to fail. You will have much better success by treating the lung. Children with congenital heart disease frequently have very thick hypertrophied right ventricles and you don't so often see the true picture of cor-pulmonale in children. In the adults where the load comes on the right ventricle after the developmental process is all completed, the thin-walled right ventricle simply is never able quite to hypertrophy enough to catch up with the load it has to bear. For that reason our success in treating cor-pulmonale will be much more due to treatment of the lung than to digitalis and diuretic therapy. However, many of these cases need every bit of improvement that you can give them by any means.

*Dr. McKee:* This concludes the conference this morning.



# FAT EMBOLISM FOLLOWING ABDOMINAL SURGERY

## REPORT OF A CASE

H. L. SCHOFIELD, JR., M. D. AND H. R. PRATT-THOMAS, M. D.

Charleston, S. C.

Much interest has been exhibited in the finding at necropsy of intravascular fat, particularly in the vessels of the lungs, brain and kidneys. In the majority of these cases such fat has been related to fractures and soft tissue injuries incurred as war casualties or in civilian accidents. Robb-Smith<sup>1</sup> in Great Britain during World War II found that fat embolism was a major cause of death in 25% of 115 accident cases. In 12 of these cases without bony injury fat embolism was believed to be the major fatal factor in six.

Shields Warren<sup>2</sup> while in the Medical Corps of the U. S. Navy surveyed 100 deaths due to fat embolism. Ninety-one of these cases had fractures of one or more bones. Musselman and Grekin<sup>3</sup> state: "Fat embolism may be expected in about one-half of all persons who have been either moderately or severely injured" and "that about 10% of the patients having fat embolism will die as a result of it." Variable degrees of fat embolism may be found at necropsy in a wide variety of conditions. It has been observed as a complication of osteomyelitis, burns, suppuration of fatty tissues, severe convulsions, blunt injury in the obese,<sup>4, 5</sup> fatty liver,<sup>6</sup> acute pancreatic necrosis,<sup>5</sup> diabetes<sup>7</sup> and the use of fatty substances for diagnostic or therapeutic purposes.<sup>8, 9</sup> Fat embolism in some of these situations may be lethal but it may also be incidental and of no serious significance, as volume of embolic fat has a great influence on its effects.

Fat embolism following operative procedures is recorded,<sup>10, 11</sup> but this is one of the rarer situations in which it occurs. We wish to describe such a case.

From The Department of Pathology of The Medical College of South Carolina, Charleston.

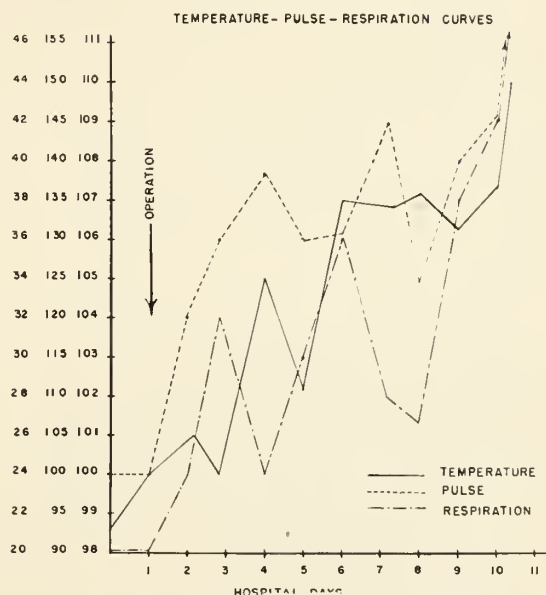


Chart 1—Clinical Course as Reflected in the Temperature, Pulse and Respiration Curves.

A 44 year old white man with a long history of alcoholism was seen by his physician because of recurrent attacks of colicky right upper quadrant pain, nausea and vomiting since 1945. Clay colored stools had been noted on several occasions. During a complete investigation a non-functioning gallbladder was found and it was thought advisable to perform a cholecystectomy. On February 7, 1952 he was admitted to the hospital with a diagnosis of chronic alcoholism and chronic cholecystitis. He freely admitted to a long history of alcoholism and had become habituated to paraldehyde. He was a very apprehensive, hyperexcitable person, unable to remain still in bed. Except for the odor of paraldehyde on his breath and slight tenderness in the right upper quadrant no other physical findings were found. On February 8, 1952 a cholecystectomy was performed under general anesthesia with cyclopropane-oxygen-ether. An enlarged liver with a rounded edge was present. No calculi were palpable in the gallbladder. Adhesions bound the gallbladder wall to the serosal surface of the duodenum. A small hard mass in the head of the

pancreas was removed for biopsy. After removal of the gallbladder, a Penrose drain was placed into the lesser peritoneal space through a stab wound in the flank and the abdomen was closed in the usual manner. Late on the same day, the patient developed generalized clonic convulsions, lasting about three minutes. Sedation was attempted by means of barbiturates, but he remained in a hyperactive state. Convulsions occurred the following morning, but for a shorter period. At no time would he allow a suction tube to remain in place and he was confused and disoriented much of the time. The wound disrupted on February 16 and was closed under local anesthesia. The patient's temperature rose to 107° and his general condition began to deteriorate rapidly. He became comatose and developed Cheyne-Stokes respiration. He died 24 hours later at which time the rectal temperature was recorded as 110°. (Chart I) No histological changes of significance were found in the gallbladder or in the tissues from the liver or pancreas that were taken at the time of operation.

#### NECROPSY:

The body was examined one hour after death and was emaciated, with a surgical dressing over the upper right abdominal area. A portion of rubber drain protruded from an adjacent stab wound in the flank. The wound was held in apposition by small sutures and widely placed wire sutures. The opened thorax showed expanded lungs and a heart of normal configuration. The right lung weighed 350 grams, the left lung 275 grams. Soft pillowy tissue with anthracotic mottling was present throughout each lung. The heart weighed 230 grams and was flabby. The myocardium, valves and coronary arteries showed no abnormalities. The abdominal cavity showed discolored tissue beneath the operative wound, extending downward about the duodenum and pancreas. The gallbladder was absent. The drain already noted extended into the lesser peritoneal sac. The liver was light brown in color, with a rounded edge, was smooth and somewhat soft in consistency. It weighed 2200 grams. A small area of the liver edge presented a wound with a suture in place. An irregular discolored area of peritoneum over the head of the pancreas extended into the substance of this organ. The adjacent fatty tissue was also discolored. The brain presented mild suggestive narrowing of the sulci and flattening of the gyri.

Histologic study showed changes of major interest in the lungs only. The pulmonary parenchyma was partially collapsed and many of the small and medium-sized pulmonary arteries contained collections of vacuolated material which actually resembled portions of adipose tissue (Fig. 1). Frozen sections and staining with Sudan IV gave a brilliantly positive reaction for fat. (Fig. 2) Fat globules were also present in alveolar capillaries and alveolar spaces, but the most conspicuous location was in the pulmonary arteries and arterioles. The lipid accumulations resembled

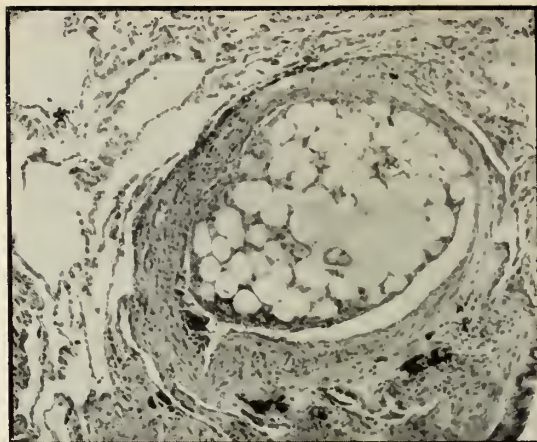


Fig. 1—Photomicrograph of lung showing accumulation of fat globules in pulmonary vessel. Hematoxylin and Eosin X200.

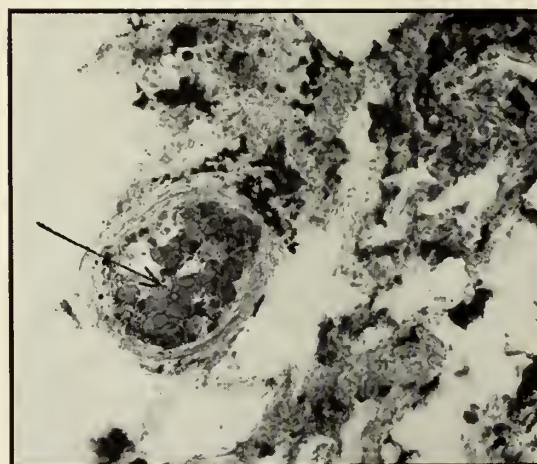


Fig. 2—Fat stain shows that globules in the pulmonary vessels stain deeply thus proving that the material is fat. Sudan IV X150.

adipose tissue because of the macrophages and fibroblasts which not only often surrounded the entire aggregation of vacuoles, but encompassed the individual globules. In some instances it was virtually impossible to be sure that actual adipose tissue fragments were not involved.

No distension of glomerular capillary loops, characteristic of renal fat embolization could be found. The brain showed an occasional perivascular hemorrhage. No vacuoles were demonstrable in the cerebral blood vessels, but tissue was not available for frozen section and special stains. The liver did not show fatty degeneration. There was necrosis of adipose tissue and pancreatic tissue at the biopsy site with necrotic destruction of parts of several veins in the area.

## Discussion:

During the years 1947 to 1952, 1,918 necropsies were performed by this department. Of these, 1,161 persons were above 11 years of age, thus no pediatric cases are included in the following statistics. Thirty-six cases of pulmonary embolism were found, which represents 3.1% of the adult cases in this study. Four of the 36 cases of pulmonary embolism were due to fat. Three of these followed fracture of long bones and one (this report) followed biopsy of the liver and pancreas and removal of the gallbladder.

It has been emphasized repeatedly<sup>12, 13</sup> that fat embolism may be clinically confused with shock, internal hemorrhage, cerebral injury, delirium tremens, bronchopneumonia and even septicemia. Certainly the present case was an ideal one for confusion with delirium tremens following the withdrawal of paraldehyde. Without microscopic proof of cerebral fat embolization the question as to whether this patient's symptoms were due to fat showers in his brain or due to paraldehyde withdrawal cannot be resolved. The cyclic step-like elevation of the temperature, pulse and respiration are entirely consistent with multiple insults to the brain due to fat globules, as is the persist-

ent state of mental confusion and failure to respond to therapy directed toward amelioration of the delirium tremens. It is surprising that the lungs did not show considerable edema and hemorrhage as might be expected from the amount of fat in the pulmonary vessels.

The source of the fat which was clearly demonstrated within the lungs and suspected within the brain was most likely the operative area in the pancreas. There was disruption of adipose tissue in this area and it is likely that free fat was liberated, veins severed and increased pressure from the ensuing inflammatory reaction followed. These factors would furnish the generally accepted conditions under which fat embolism occurs. It appears most probably that the fat gained entrance to the pulmonary circulation at the time of operation as there had been time for fibroblastic and macrophagic reaction to occur about the fat globules.

## Summary

A case is described of proven pulmonary and suspected cerebral fat embolism following an operation in which tissues from the pancreas and liver were removed for biopsy and the gallbladder was removed.

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# ELECTROCARDIOGRAM OF THE MONTH\*

DALE GROOM, M. D.\*\*

Charleston, S. C.

*Case Record*—A 38 year old white male was admitted to the hospital complaining of "pain in the heart". Apparently he had been well until about 8 months previously when he had noted a gradual onset of fatigability, weakness, and dyspnea on exertion. About 3 months prior to admission he had begun experiencing bouts of recurrent sharp pains in the left side of the chest and epigastrium which were not related to movement, to meals or to exertion. All these symptoms had progressively increased in severity so that 6 weeks previous to admission severe dyspnea, orthopnea, chest pain and edema rendered him unable to continue his work as a mechanic. Usual methods of treatment, including digitalization and diuretic therapy, had failed to effect any appreciable improvement.

The patient acknowledged no past history suggestive of cardiovascular disability nor of rheumatic fever, tuberculosis, pulmonary or gastrointestinal disease.

On admission he was obviously orthopneic and appeared chronically ill. There was visible distention of the neck veins and the liver was enlarged down to the umbilicus with moderate pitting edema of both lower extremities. Moist rales could be heard in the lung bases posteriorly. The apical impulse was forceful but diffuse, the heart sounds were muffled and indistinct, and there was a very faint soft blowing diastolic murmur heard only in the 5th intercostal space at the left sternal border. A circulation time (arm to tongue) was recorded as 45 seconds, and the venous pressure as 300 mm. of water.

Röntgenographic examination revealed accentuation of the bronchovascular markings, mild bilateral pleural effusion, a rounded area of increased density in the left hilar region, and fractures of the left 5th and 9th ribs. The heart was grossly enlarged, particularly on the right side, and fluoroscopically no beat was visible in the region of the right cardiac border. It was the impression of the radiologist (Dr. Harold Pettit) that, while all these findings might be secondary to an adhesive pericarditis, a metastatic carcinoma

to the right side of the heart, the right lung and the ribs should also be considered.

A pericardiocentesis was attempted through the sub-xiphoid approach. No fluid was obtained. It was decided to do a biopsy on a rib at the fracture site and then possibly to explore the pericardium with pericardiectomy in mind. However, the patient's condition continued to deteriorate rapidly with increasing dyspnea, tachycardia, restlessness and coma. He died 5 days after admission to the hospital.

An autopsy was performed.

## *Electrocardiogram*

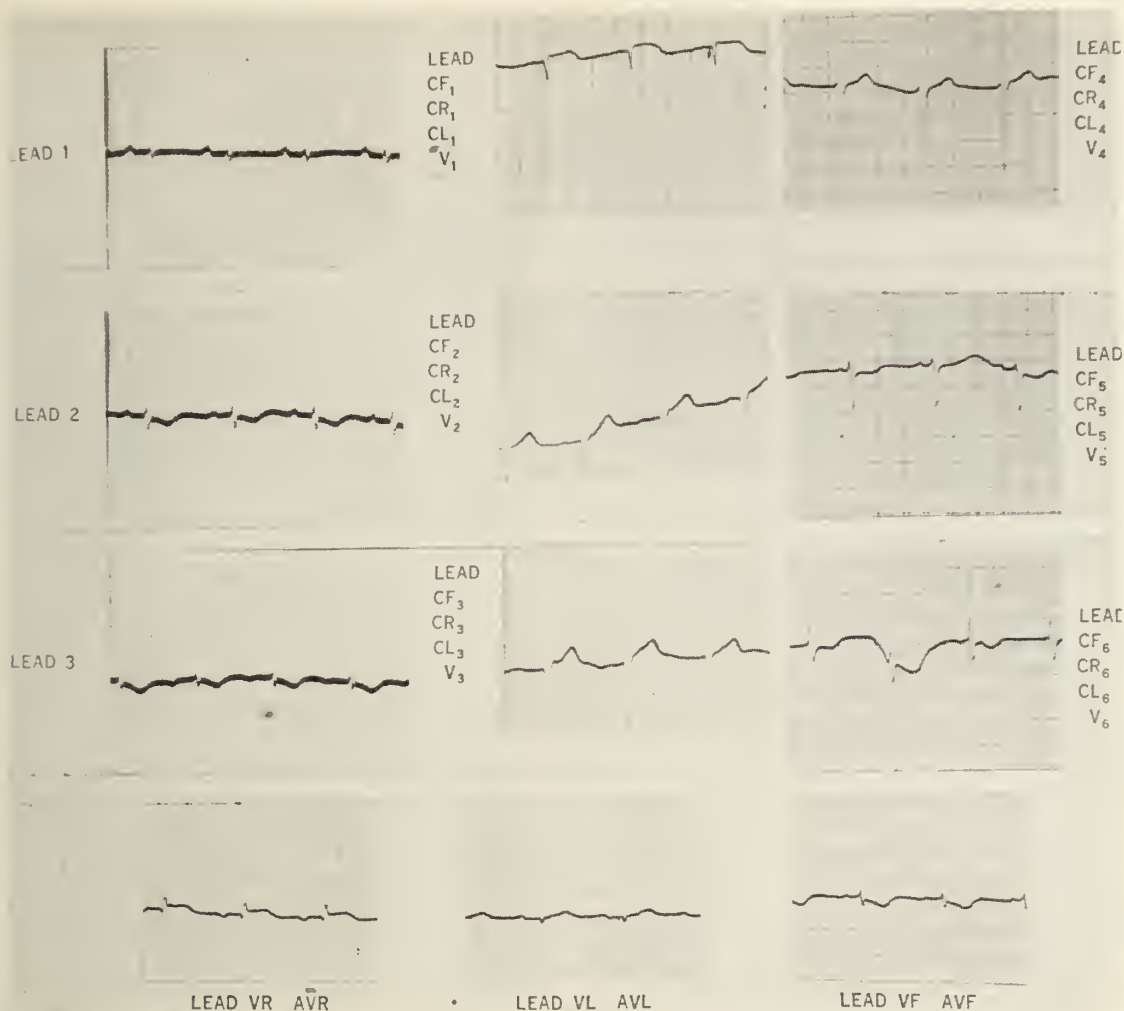
The most striking features of this electrocardiogram are the low voltage deflections throughout, particularly in the standard leads, and the absence of R waves in the precordial leads as far left as V-3. Additionally there are small but definite elevations of the ST segments in leads V-1 and AVR with perhaps minimal depression in AVF. The P-R interval is at the upper limit of normal, measuring 0.20 seconds, and some non-specific T wave changes are seen in the left ventricular precordial leads (V5-6), both attributable to digitalis administration. An electrocardiogram taken elsewhere one month previously revealed similar but less advanced changes from normal.

## *Discussion*

Though not diagnostic, the electrocardiogram is of prime interest in this case. The low voltage QRS deflections are compatible with the initial clinical impression of pericarditis. Absence of R waves in the right ventricular precordial leads, however, is a more specific abnormality and indicates that the electrode in these positions overlies an area of electrically inactive myocardium. Such is the case in infarction of the anterior wall whereby the underlying muscle tissue which produces the R wave is destroyed and a "physiologic hole" results at that point, the simple QS deflection recorded being essentially the same as that which would be obtained normally if the electrode could be placed inside the ventricle. The

\*One of a series of clinical-electrocardiographic correlations. Purpose of this series is the presentation, not of rare or unusual ECGs, but of those which illustrate basic electrocardiographic principles or which contribute prominently to the clinical diagnosis.

\*\*Asst. Professor of Medicine, Medical College of S. C. From the Department of Medicine, Medical College of S. C., and the Roper Hospital, Charleston, S. C.



absent or markedly diminished R waves extending as far as V-5, therefore, are strongly indicative of a large area of electrically inactive muscle tissue in the anterior ventricular wall; this is ordinarily construed to signify infarction of the area.

Autopsy in this case revealed an angiosarcoma, primary in the heart, almost completely replacing the right atrial and right ventricular walls, with invasion of both chambers of the right heart and extension into the left ventricular wall. Metastases of this sarcoma were identified in the lungs, the ribs, the liver and adrenals.

Very little has been written about electrocardiographic findings in these exceedingly

rare cases. It is possible that the small ST segment shifts may have been caused by injury currents arising from active invasion of normal tissue. The impaired electrical function which is evident in the low voltage deflections and is localized by the precordial V leads was undoubtedly due to the functionally inactive tumor tissue rather than infarcted myocardium as would ordinarily be supposed. Its counterpart was the absence of contractile activity of the right cardiac border observed by the radiologist.

The rapid and relentlessly progressive downhill clinical course with bizarre chest pain and lack of response to digitalization is unusual and bespeaks malignancy.

# STEVENS - JOHNSON SYNDROME

A. M. ROBINSON, M. D.

Columbia, South Carolina

Erythema Multiforme Bullosa, was first described by Stevens and Johnson<sup>1</sup> in 1922, as a new syndrome, in which they found a generalized cutaneous eruption, stomatitis and conjunctivitis. They claimed that the cases were unlike anything previously described and coined the phrase, "eruptive fever associated with stomatitis and ophthalmia". The cases described by Stevens and Johnson occurred in boys aged seven and eight, and were classified among the group of infectious eruptive fevers. It was stressed, however, that there was nothing to indicate that the illness was spread by immediate contagion.

The earliest recorded observation of this condition was made in the middle of the nineteenth century by Hebra,<sup>2</sup> who noted the more benign manifestations of the disease and termed it erythema-multiforme. He described it as an "acute inflammatory disease characterized by a cutaneous eruption of peculiar features and typical localization, benign in character and prone to recurrence". When this condition of mucosal lesions are present and associated with copious purulent conjunctivitis, it



Fig. 1—B.H., 10 Yrs. Stevens-Johnson Syndrome  
1 weeks duration



Fig. 2—B.H., 10 Yrs. Stevens-Johnson Syndrome  
1 weeks duration

is sometimes known as ectodermosis erosiva pluriorificialis. There have been numerous reports in the literature in the past 30 years recorded as Stevens-Johnson disease. This appellation is nevertheless limited to the clinical description as originally propounded by Stevens and Johnson.

Erythema multiforme bullosum can sometimes be caused by drugs (Fig. 1) such as the sulfonamides, and phenolphthalein, (commonly used in many laxatives, coloring agents, as seen in pink icing, Dentyne chewing gum, etc.). In the majority of cases, however, it is usually of idiopathic origin. (Fig. 2)

The illness usually attacks males in the first 30 years of life. It is most prevalent in the spring of the year. The onset is abrupt and is associated with temperatures varying from 102 to 104 degrees, headaches, chills, malaise, sore mouth and throat. There may be, peculiarly enough, serologic evidences of concomittant psitticosis or ornithosis. Although the onset usually occurs with fever and general malaise, normal temperatures have been reported. The fever may last from 4 to 30 days and nausea and vomiting may accompany the discomfort. Pneumonia has been noted as a common complication, or an integral part of the illness. The most striking feature of the illness is the severity of the constitutional reaction.

There are some authorities who believe that this condition may be one manifestation of other toxic bullous dermatosis, such as pemphigus and dermatitis herpetiformis (Dühring's Disease). They state that the clinical manifestations depend upon the relationship of toxicity or virulence of the pathogen, and immunologic status of the host.

Stevens and Johnson described a maculopapular eruption of a brownish color. Some of the lesions became hemorrhagic, some showed central necrosis, and some were covered by a horny scale. The majority of patients have had generalized eruptions chiefly of a vesicular or bullous nature. Occasionally there are no cutaneous lesions present.

Ocular lesions vary from mild conjunctivitis to corneal ulcerations and panophthalmitis with destruction of the globe.

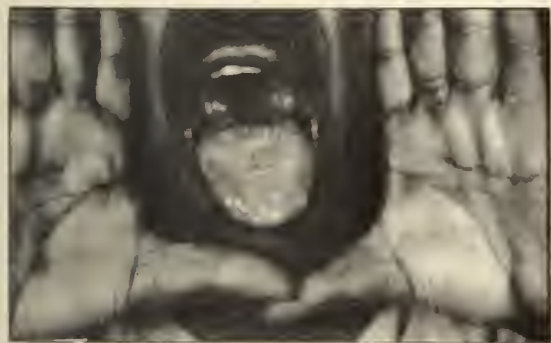


Fig. 3—Erythema Multiforme Bullosum Showing bullae of palms and buccal mucosa.



Fig. 4—Erythema Multiforme Bullosum due to Phenolphthalein. Similar bullous lesions appeared in buccal mucosa.

The oral lesions have been primarily of a vesicular or bullous type, with ulceration, blood crusting and fissuring. Edema of the affected parts and formation of pseudo-membrane is typical. The involvement of other mucosal surfaces has been featured more prominently in the more recent literature.

#### Case Report:

B.H. a ten year old white male, (Fig. 3 and 4) was first seen in January 6, 1955 referred by his family physician with the complaint of marked soreness and crusting about the oral mucosa of five days duration. The areas had been painted with gentian violet and penicillin had been administered for a possible Vincent's infection. Patient had experienced slight upper respiratory infection during this time. No history of the use of drugs could be obtained.

Examination revealed a quite toxic and somewhat dehydrated youth. The patient had been unable to eat because of mouth involvement and temperature of 102 degrees. There were extensive erosions of the entire buccal mucosa with marked crusting about the lips as seen in figure 3. There were also numerous round, deep, violaceous colored areas with bullae in the center and symmetrically distributed over the upper and lower extremities (Fig. 4).

The condition responded dramatically to steroid and other supportive measures. Hydrocortisone was administered with dose of 40 mg. every 6 hours for 3 days. At this time the condition showed improvement. Lesions healed promptly. This dosage was continued for 2 more days, after which it was reduced by 20 mg. every other day. The upper respiratory condition cleared. The mucosa remained well and skin lesions continued to improve during this period. The patient was put on a high caloric diet and given large doses of multiple vitamins. Appetite returned and general physical condition improved. Within two weeks the patient was cured.

(Continued on page 29)

# TERIDAX, A NEW CHOLECYSTOGRAPHIC MEDIUM

REYBURN W. LOMINACK, M. D.\*

Newberry, S. C.

Recently the Schering Corporation has released a new oral cholecystographic medium known as Teridax. The chemical formula is alpha-ethyl-beta-(2, 4, 6-triiodo-3-hydroxyphenyl) propionic acid. It occurs as a white, odorless crystalline powder containing 6.5% iodine and has a molecular weight of 572. It is almost insoluble in water and petroleum ether, and chloroform. It is less soluble in benzene and carbon tetrachloride. The compound is stable under ordinary conditions to light and heat but tends to turn dark on exposure to direct sunlight.

The urinary tract seems to be the major route of excretion of Teridax,<sup>1</sup> although some is excreted in the feces. This is in contrast to Priodax, which is largely excreted by the gastrointestinal tract. Studies indicate that it is no more toxic than Priodax and is better tolerated. No evidence of damage to the liver, kidneys, heart, or hemopoietic system has been reported to date. However, the same precautions that are used in administering Priodax should be used with it.

We have used Teridax for the past two years in our office and now have a series of 100 patients who have received it. It has been found that the best dose seems to be four tablets (.75 gms. each) for patients weighing up to 125 pounds, six tablets from 125 to 175 pounds and eight tablets from 175 pounds up. The density of the gallbladder shadow can definitely be controlled by the amount given. Twelve hours seems to give best results for concentration, but films can be obtained at 8 and 10 hours. The non-protein-nitrogen and blood sugar of 25 of these patients showed no significant

change following Teridax administration. We have observed no effect on the blood count or urine of patients receiving it. The urine however, will give false tests for albumin as will Priodax and Telepaque when preparations containing sulfo-salicylic acid are used.<sup>2</sup> Teridax is better absorbed from the gastrointestinal tract than Priodax with less disturbing shadows in the colon, and the extra-hepatic ducts are better visualized following a fatty meal. In our patients, we encountered no cases of vomiting, 15 cases of mild nausea, and 27 cases with some looseness of the stools but no abdominal cramps. There were two cases of dysuria and no allergic reactions, although the latter will probably be reported later in patients sensitive to iodides. It was found accurate in cases of non-visualization of the gallbladder.

To date we are favorably impressed with our results with Teridax and have found it suitable for routine gallbladder studies. In our hands the side reactions are definitely less than with other cholecystographic mediums.

Teridax should always be stored at temperatures below 105 degrees Fahrenheit. At this temperature or above, it has a tendency to break down and give poor gallbladder shadows. There is no indication that it becomes toxic because of this.\*

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\*Personal communication from the Medical Department of The Schering Corporation.

\*Dr. Lominack died November 22, 1955

# Editorials

## VOLUME 52

With this issue the Journal enters its fifty-second volume. It makes no radical change in its appearance or in its policy. It still aims to instruct and inform, or even amuse, and it still opens its pages widely to contributions, scientific or medico-political, and to expressions of opinion on the affairs of the Association.

The editor is convinced that much good material of all sorts is available in our state, and invites contributions to our columns.

### IN AND OUT OF SURGERY

For those who belong to that class which is not the first by whom the new is tried, it is somewhat hard to assimilate the expression "in surgery", popularized by the medical marvels of screen and novel, and referring to the presence of the surgeon or the patient in the operating room. Surgery has enjoyed the distinction of being an art, a science, or at worst, a trade rather than a place. It is true that our socialized medical brethren in England work in surgeries, and each may work in a surgery, but not all work in surgery. Perhaps there should be an expression less cumbersome than "operating room", but for the present it is more specific than "in surgery", which simply points to a man's occupation and not to his whereabouts.

### POLIO AHEAD: THE REASONS BEHIND THE 1956 SOUTH CAROLINA MARCH OF DIMES

South Carolina will still have polio problems in 1956. The number of polio cases reported in South Carolina in 1955 was about one-third higher than the average number of the previous five years and about the same as in 1954.

The Salk vaccine is a major weapon against paralytic poliomyelitis, but it has not yet won the war against this disease.

Continuing cooperation of physicians must be had both in administering the vaccine and in caring for patients already paralyzed and

*who will be* paralyzed in spite of the vaccine. The Salk vaccine is not 100% effective and it will take considerable time yet, perhaps years, before all individuals most susceptible to paralytic poliomyelitis can be fully immunized against it.

The National Foundation for Infantile Paralysis, supported solely through public contributions to its January March of Dimes, has made an enviable record, both in this state and nationwide, for meeting the problems posed by paralytic polio. In 1955 the March of Dimes gave 244,000 ml. of Salk vaccine without charge to the state of South Carolina to initiate a statewide vaccination program.

The results already reported from the use of the vaccine are most encouraging but they must not be allowed to blind the eye of the medical profession to the road that still lies ahead. There remains a great need for additional research to improve the Salk vaccine, to determine the duration of immunity it effects (and conversely to determine the need for "booster shots") and to provide the best possible treatment for patients already or yet to be involved with paralytic poliomyelitis. There is also a vast need for the professional education of young men and women who will contribute to the necessary research and help give the needed treatment.

To pay for research, education and aid to polio patients, the March of Dimes needs \$47,600,000 in 1956. South Carolina physicians, knowing both the need and the record, will want to support and urge their patients to support the 1956 March of Dimes in their own communities.

A brief review of the record of the National Foundation for Infantile Paralysis in South Carolina, where it has 46 local chapters, should help to orient physicians to the many services to patients and the professions which have been made possible by the March of Dimes since 1938, when the National Foundation was founded.

Over \$1,500,000 has been spent in South Carolina by local chapters for the care of polio patients.

A total of 49 National Foundation scholarships and fellowships has been awarded to South Carolina residents.

Emergency aid in dollars and in equipment for polio patients has been generously supplied to South Carolina. In the first 10 months of 1955, for example, a total of \$12,200 in emergency aid was sent to 5 South Carolina chapters by the national headquarters of the National Foundation. In the year 1954 the amount was \$14,800 to 7 chapters.

A total of 3 tank respirators, 4 chest respirators and one rocking bed was sent into South Carolina in the first ten months of 1955. The previous year South Carolina got 6 respirator shipments.

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#### PRAISE FOR THE DOCTOR

I recently had the pleasure of attending the Spartanburg Foundation's Annual Dinner Meeting. This year's meeting honored the Medical Profession of Spartanburg County. Dr. Charles W. Mayo was the invited guest speaker. The Honorable James F. Byrnes introduced the speaker. The introduction was so impressive that I asked permission to have it printed. Seldom does the profession receive praise for their charitable labors, and I know that all appreciated the thought of this distinguished statesman. The introduction is quoted in part as follows:

"It was a wise decision by the officials of the organization to pay tribute this year to the Medical profession. No other group of men give so liberally of their time and talents for the relief of the needy. The ethics of their profession cause the Doctors to be poor publicity men. They are notoriously negligent in the field of public relations. The truth is, the rest of us have become so accustomed to calling upon the Doctors to serve the needy without compensation, that we regard it a part of their duty to society. Certainly, we seem to expect of them more than we expect of other professions and more than we, as individuals, are willing to give. Because this is true, I regard it a privilege to join you in paying tribute to

the Medical profession.

"It is appropriate that on such an occasion, the Foundation should invite as its guest speaker, a distinguished member of the Medical profession."

O. B. Mayer

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#### THE RED CROSS BLOOD PROGRAM

The idea of sponsoring a blood transfusion service was first voiced in 1929 by the Birmingham, Alabama, Red Cross Chapter, and 9 years later this service was inaugurated on a local basis in 12 Red Cross chapters. Because of these and other blood-collecting activities, the military asked the Red Cross to organize an Army-Navy Blood Donor Service in 1941.

After collecting more than 13,300,000 pints of blood for the armed forces during World War II, the Red Cross terminated this program, but 250 Red Cross chapters continued to recruit donors in an attempt to meet local blood needs. The peacetime demand for blood increased rapidly and, after study by representatives of the American Medical Association, American Hospital Association, Public Health Service, Red Cross, and other health organizations, the Red Cross Blood Program emerged in 1947. Thus, when the Department of Defense asked the Red Cross to coordinate blood collection activities for national defense and the Korean conflict, it was able to meet these demands as well.

Because of its extensive experience as a blood-collecting agency, the Red Cross has held a position of leadership in promoting the production and use of blood derivatives. Nearly 18,100,000 ml. of gamma globulin have been provided by the Red Cross for the prevention or modification of measles and infectious hepatitis, and 315,900 vials (100 ml. each) of serum albumin have been made available to combat shock and kidney and liver ailments.

Today, the Red Cross, the American Medical Association, the American Hospital Association, the American Association of Clinical Pathologists, and the American Association of Blood Banks have created a Joint Blood Council to develop a nationwide system that will make blood available to donors' families and friends whenever and wherever they may need it.



## PRESIDENT'S PAGE

Occasionally, one hears the following inquiry: "Why doesn't the State Association have a permanent home?" At a recent meeting of Council this was briefly discussed and the matter is to be further studied.

I wrote to the AMA to find out how many State Societies now have permanent homes, and I learned that quite a few already have such homes, namely: Connecticut, District of Columbia, Georgia, Iowa, Maryland, Massachusetts, Michigan, New Jersey, Pennsylvania, Rhode Island, Texas, Virginia, Wisconsin; and Oklahoma and Mississippi are in the planning stage.

The South Carolina Medical Association is one of the oldest in the United States and is rich in history and tradition. Some very valuable records have accumulated over the years, and no doubt, others have been lost, because no suitable place was available for safekeeping. It seems that this is a good time to think about the matter and consider the advantages that would accrue from a permanent place for directing the Association's affairs, and where the historical records and books could be permanently kept and protected. At the present time, the Editor of the Journal has custody of the old minutes and such other records that are now preserved, and they are temporarily housed through the courtesy of the library at the Medical College.

Let us each give thought to this matter, because sooner or later it may come up for action.

O. B. MAYER

## MINUTES OF COUNCIL MEETING COLUMBIA, S. C., NOV. 16, 1955

A special meeting of Council was held at the Columbia Hotel, Columbia, S. C., November 16th, called by the Chairman. The meeting was called to order at 2:30 p. m. by Dr. J. P. Cain, Chairman of Council. Members present were Dr. J. P. Cain, Dr. B. Smith, Dr. H. Morgan, Dr. W. Weston, Dr. Owens, Dr. Prioleau, Dr. Mayer, Dr. Wyatt, Dr. MacDonald, Dr. King, Dr. Price, Dr. Waring, Dr. Burnside, Dr. Stokes, Dr. Gressette, Dr. D. L. Smith and Dr. Wilson. Mr. M. L. Meadors, Executive Secretary was also present. During part of the meeting Mr. Jake Hill of Columbia, S. C., Assistant Counsel for the Naturopathic situation, and Drs. McDaniel and Tucker Weston of Columbia were present. The minutes of the meetings of May 9th, 10th and 12th, held at Charleston, S. C. in conjunction with the Annual Meeting of the Association were approved as published.

The Chairman announced that the first order of business would be a consideration of the situation in regard to the Naturopathic Bill now pending in the State Senate. Mr. M. L. Meadors gave a brief review of the situation, noting that there was an agreement in the Senate to vote on the bill by January 25, 1956. Dr. Gressette stated that he had been informed that difficulties would be encountered but that the State Association should keep going to its utmost to help have the bill passed. Mr. Jake Hill made comments along this line and additional discussion was by Drs. Wyatt, D. L. Smith, Morgan, Burnside, B. Smith, MacDonald, Weston, King, Mayer, Prioleau and Owens. No action was taken but it was pointed out that it was quite important to get all physicians who could possibly do so to attend the session of the Senate when the bill came up for action.

Dr. McDaniel then reported to Council on the Salk Vaccine and the plan for its distribution in South Carolina.

The Chairman then called for a discussion of Civilian Defense, and noted the resolution of Council of May 10th which had been approved by the House of Delegates. Dr. Tucker Weston, Chairman of the Medical Association Committee on Civilian Defense spoke at some length in regard to the present situation and further comments were made by Drs. Julian Price and the Secretary. It was moved that a committee of Council be appointed to work with Dr. Weston's Committee and the Chairman appointed Dr. C. Wyatt as Chairman of this subcommittee, Dr. D. L. Smith and Dr. Bachman Smith as members.

At the request of the Chairman, the Secretary read a letter from Dr. J. D. Guess regarding the present condition of the Blue Cross and Blue Shield plans which was received as information.

The Chairman announced that the next order of business would be consideration of the budget for 1956 and noted that Council had changed the fiscal year to coincide with the calendar year, continuing

the previous budget through December 31, 1955. Motions were made and carried to make the following changes in the annual budget: a) To increase the office expense allowance of the Editor to \$1200; b) To increase the Editor's salary to \$1800; c) To increase the allowance for office help in the Executive Secretary's office to \$7000; d) To increase the rent allowance to \$1200; e) To increase the allowance for office supplies to \$1200; f) To increase the allowance for telephone and telegraph expenses to \$600 and for utilities to \$250; g) To increase the allowance for attending conferences and public relations to \$750; h) To increase the allowance for bond premiums to \$382.04; i) To increase per diem allowance to delegates and officials attending the AMA to \$20 per day; j) To increase the allowance for the President's expenses to \$1200 a year, and to send a check for this amount in monthly payments.

The budget for the year 1956 as finally passed was as follows:

<b>Secretary</b>	
Office Help -----	\$ 900.00
Office Expense -----	600.00
Travel -----	500.00
<b>Treasurer</b>	
Expense -----	\$ 100.00
<b>Journal</b>	
Office Expense -----	\$ 1,200.00
Editor's Salary -----	1,800.00
Bus. Mgr.'s Salary -----	900.00
Printing -----	12,000.00
<b>Executive Secretary</b>	
Salary -----	\$ 8,200.00
Office Help -----	7,000.00
Travel -----	1,500.00
Rent -----	1,200.00
Office supplies -----	1,200.00
Telephone and Telegraph -----	600.00
Utilities -----	250.00
Conf. & P. R. -----	750.00
Bond premium -----	382.04
<b>Delegates to AMA and Alternates</b>	
Expense -----	\$ 1,500.00
<b>President</b>	
Expense -----	\$ 1,200.00
<b>General Expenses</b>	
Naturopathy -----	\$ 5,000.00
Woman's Aux. -----	600.00
Essay Contest -----	175.00
Presidents Gift -----	200.00
Historical Com. -----	500.00
Infant Mort. Com. -----	200.00
Contingent Fund -----	1,000.00
<hr/>	
Total -----	\$49,457.04

It was pointed out in the discussion that expenses for the Annual Meeting could not be estimated, but that these were largely covered by the income from exhibits. It was further moved by Dr. Morgan that it

be the policy of the Association to sell tickets for any entertainment at the meeting and this motion was passed.

Mr. Meadors pointed out that there was no provision for fringe benefits for employees of the Executive Secretary's office, such as Blue Cross and Blue Shield policies, and a motion was made and carried to the effect that Mr. Meadors be requested to investigate possibilities along these lines and to report back to Council.

The Secretary pointed out the possibility of investing some of the funds of the Association in a permanent building and home for the Association, with additional rental units as a source of income for amortization, and moved that the Chairman appoint a Committee to investigate the possibility of investing some of the accrued funds of the Association in this way. This motion was passed.

The Secretary then read a letter from Mr. B. L. Wood, Chairman of the Committee on Science Fairs for South Carolina and was directed by Council to find out something further about this matter before any appropriation would be made.

The Editor, Dr. J. I. Waring, pointed out that the old minutes of the Association were housed in the Medical College Library and this should be noted by the officers and members of the Association.

Dr. Frank Owens, Chairman of the Legislation Committee of the Association reported to Council on the situation in regard to the Doctor Draft Law and stated that it was probable that in the course of the next year a few physicians would be drafted into Military Service.

Dr. Roderick MacDonald spoke at some length in regard to the Optometry Bill now under consideration in the House of Representatives of the State Legislature and comments were made by Dr. Owens, Dr. Gressette, Dr. Weston and others. It was moved that the Council direct the Executive Secretary to write a letter to various members of the Legislature regarding the opposition of the South Carolina Medical Association to this bill, and that an all out effort be made to defeat the bill, first in the House of Representatives and then in the Senate if this should be necessary. This motion was passed and the Secretary was directed to write to the Legislative Committee in regard to the stand of Council in this matter.

Dr. Julian Price, member of the Board of Trustees of the AMA spoke of the opposition of organized medicine to the Social Security Bill now pending in the United States Senate, H.R. 7225.

Dr. J. P. Cain reported for the Insurance Committee and presented a plan for group disability insurance underwritten by the Educators Insurance Company of Pennsylvania. Dr. B. Smith moved that Council approve this plan and that the prospectus be accompanied by a letter of recommendation signed by the President of the Association. This motion was passed.

Dr. Cain then noted the presence of several foreign graduates practicing without a license in the state and in certain state institutions and noted the previous resolution of the House of Delegates passed in 1951 in regard to this practice. Dr. Price noted that it had been his opinion that the South Carolina Medical Association should not be involved in police powers and Dr. Weston moved that the previous resolution reflecting the opposition of the Association to this practice be referred back to the House of Delegates for reconsideration.

The Secretary noted a resolution of the Greenville Medical Society in regard to their approval of the Bricker amendment and Council passed a motion likewise approving this amendment now pending in the United States Senate. A letter from the Governor's office in regard to the South Carolina Industrial Commission was read and received as information.

Mr. Meadors noted that Dr. R. W. Hanckel, Secretary of the Charleston County Medical Society, had suggested that half a year's dues be charged by the Association for one half year membership and it was moved that a change to this effect be recommended by Council to the House of Delegates for their consideration at their next meeting.

Dr. J. I. Waring spoke of the desirability of preparing a handbook for Delegates for their use at the Annual meeting and this plan was approved, the Chairman appointing a committee consisting of Drs. Waring, Chairman, Stokes, and Mr. M. L. Meadors to consider the publication of such a handbook.

Dr. O. B. Mayer, President of the Association, read a letter of appreciation from Dr. Tom Gaines, immediate past president. Dr. Mayer then noted that there was some confliction in the names of certain committees and moved that Council recommend to the House of Delegates that the Committee on Maternal Welfare be changed to the Committee on Maternal Health, and that the Committee on Infant Mortality be changed to the Committee on Infant and Child Health. A motion to this effect was carried.

Dr. Waring spoke of the desirability of sending a one year subscription to the State Journal to the graduating class in medicine at the Medical College and thought that 80 copies could be used for this purpose at a cost of approximately \$150 a year. He thought that it might be well to try and interest some commercial firm in underwriting this project and Dr. Prioleau moved that this suggestion be adopted. This motion was then carried.

Dr. J. P. Cain, Chairman of Council, then reminded Council of the necessity for making an all out effort in the Legislative fight to pass the pending bill in regard to naturopathic practice in the state and following his address Council adjourned at 7 p. m.

Robert Wilson, M. D.

Secretary

## THE OPTOMETRY BILL

At the Annual Meeting in May of this year, the House of Delegates adopted a Resolution endorsing the effort being made by the South Carolina Society of Ophthalmologists and Otolaryngologists to prevent the passage of a proposed bill in the State Legislature designed to extend the authority of Optometrists in this State, and throwing the weight of the Association's influence in full support of the activities of the Ophthalmologists. At a meeting of Council on November 16, plans were made to actively implement this Resolution in every way possible.

The purpose of this letter, therefore, is to enlist your PERSONAL, INDIVIDUAL and ACTIVE support. The pending bill proposes to make two changes in the present law relating to Optometrists in South Carolina. The most important is the clause which provides that "no official, board, commission, or other agency of the state, or of any of its subdivisions or municipalities, shall *discriminate* between the practitioners of Optometry and any other ocular practitioners."

This means that state and county health officers, county boards of health, boards of trustees and nurses and teachers in the public schools, would not have the right to advise pupils or other individuals in need of eye care, within the jurisdiction of the particular board, commission or agency, to engage the services of an ophthalmologist, but would be required to refer such persons indiscriminately to Ophthalmologists and Optometrists, leaving the individual to make the necessary choice as to whom he would consult. Such provision would be strongly inimical to the public welfare, for, as is well known, many of those affected would be entirely without sufficient knowledge or information to distinguish between an Optometrist and an Ophthalmologist, or between their respective qualifications.

The other proposed amendment simply emphasizes an already existing provision of the law making the testimony of an Optometrist licensed to practice in South Carolina eligible to be received by any official, commission, board or agency of the State, or its subdivisions or municipalities, as qualified evidence with respect to matters included within the broad definition of Optometry, as given in the Code of Laws.

The amendments, of course, are supported strongly by the Optometrists, and appear to be in full accord with a general effort throughout the country to broaden their powers and authority under the licensing laws of various states.

The proposals should be defeated in the public interest. While the eye physicians, naturally, will come in direct contact with the unfortunate results if the amendments are enacted, similar efforts with respect to other branches of medical practice may be expected from time to time.

In line, therefore, with the action of the House of Delegates and the Council of the South Carolina Medi-

cal Association, you are requested and urged to contact the members of your delegation in the House of Representatives as quickly as possible after receipt of this letter. See them individually and personally, and take time for an interview sufficiently long to explain the situation and the effect of what is proposed. The bill seems harmless enough upon its face. It has already passed two readings in the House of Representatives and received a favorable report from the committee to which it was referred. Please enlist your Representatives' aid in defeating the bill on third reading in the House.

It can be done if every doctor will do his part and use his influence with the Representatives from his county. See them at home between now and the middle of December, then keep in touch with them and follow the matter up when the Legislature convenes in January.

Sincerely yours,  
M. L. Meadors

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### REPORT ON ACTIONS OF THE HOUSE OF DELEGATES AMERICAN MEDICAL ASSOCIATION NINTH CLINICAL MEETING NOV. 29—DEC. 2, 1955 BOSTON, MASS.

BOSTON, Mass., Dec. 2 — Social security, the report of the Committee on Medical Practices, grievance committees and revisions of the code of medical ethics were among the major subjects of discussion and action by the House of Delegates at the American Medical Association's Ninth Clinical Meeting held Nov. 29 - Dec. 2 in Boston.

#### *Social Security*

Major legislative policy action taken at the Boston meeting involved H. R. 7225 known as the Social Security Amendments of 1955. This bill, which was passed last summer by the U. S. House of Representatives and is now pending before the Senate Finance Committee, includes a proposal for federal cash benefits to selected individuals judged to be permanently and totally disabled. The House of Delegates adopted a substitute resolution proposed by the Reference Committee on Legislation and Public Relations to combine the intent of four resolutions and three supplementary reports of the Board of Trustees dealing with H. R. 7225 and other aspects of Social Security. The substitute resolution stated the following policy:

"That the American Medical Association reiterate in the strongest possible terms its determination to resist any encroachment upon the American system of medical practice which would be detrimental to our patients, the American people;

"That the American Medical Association urge and support the creation of a well-qualified commission, either governmental or private or both, to make a thorough, objective and impartial study of the eco-

conomic, social and political impact of Social Security, both medical and otherwise, and that the facts developed by such a study should be the sole basis for objective non-political improvements to the Social Security Act, for the benefit of all of the American people;

"That the American Medical Association pledges its wholehearted cooperation in such a study of Social Security in the United States, and will devote its best efforts to procuring and providing full information on the medical aspects of disability, rehabilitation and medical care of the disabled, and

"That copies of this resolution be transmitted to the President of the United States, to all members of the Cabinet, to all members of the Congress, and to all constituent state medical associations."

#### *OASI Coverage of Physicians*

In another action on social security, the House Passed the following resolution designed to determine the exact attitude of physicians toward compulsory or voluntary coverage under the social security system:

"Whereas, Misunderstanding exists about the position of the medical profession on the question of the inclusion of physicians in the Old Age and Survivors Insurance provisions of the Social Security Act; therefore be it

"Resolved, That the House of Delegates of the American Medical Association recommend to state societies that they poll their entire membership on this question and that the results of the poll be transmitted to the Board of Trustees of the American Medical Association as soon as possible."

#### *Report on Medical Practices*

The House passed a substitute resolution offered by the Reference Committee on Insurance and Medical Service to implement the findings and recommendations of the Committee on Medical Practices (Truman Committee), which studied the basic causes leading to certain unethical practices and unfavorable publicity. The resolution adopted with the proviso that it is subject to review by legal counsel, includes the following points:

"That a Continuing Committee on Medical Practice be created in the American Medical Association to conduct a study of the relative value of diagnostic, medical and surgical services and to report its findings and recommendations to this House in the same manner as is now followed by other committees and councils of the Association;

"That this committee shall consist of five members of the House appointed by the Speaker, three of whom shall be general practitioners; . . .

"That this committee be directed to utilize all possible means to stimulate the formation of a department of general practice in each medical school;

"That the American Medical Association approve of the medical school teaching programs which afford the medical student opportunity for experience in the general practice of medicine;

"That the representatives of the American Medical Association on the Joint Commission on Accreditation of Hospitals be instructed to stimulate action by that body leading to the warning, provisional accreditation or removal of accreditation of community or general hospitals which exclude or arbitrarily restrict hospital privileges for generalists as a class regardless of their individual professional competence, after appeal to the Commission by the County Medical Society concerned;

"That this committee cooperate in every way and assist the public Relations Department of the American Medical Association to present a program of public education designed to bring about a better understanding of all fields of medical practice, and

"That this committee use its full influence to discourage any arbitrary restrictions by hospitals against general practitioners as group or as individuals."

In a complementary action on the same subject, the House also approved a supplementary report of the Board of Trustees which included the following suggestions:

1. All non-surgical groups should be asked for their suggestions and cooperation in carrying out a public education program on the value of diagnostic and medical work.

2. The various specialty boards should be encouraged to reappraise the practice restrictions on their board diplomates.

3. The American Medical Association should continue to discourage arbitrary restrictions by hospitals against general practitioners.

4. Organized medicine is "ready willing and able to solve satisfactorily its own problems, and such assurance should be given to the American Hospital Association or any other group concerning itself with such problems."

#### *Guides for Grievance Committees*

The House approved the report of the Committee to Recommend Guides for Grievance or Mediation Committees and commended the committee for "their superb approach to this problem." Purpose of the guides is "to promote general uniformity of organization and function of grievance committees—and better understanding of their purposes—without interfering with the inherent autonomy of constituent medical associations. Constituent associations are therefore urged to implement these guides without delay."

The Reference Committee on Miscellaneous Business made the following recommendations which were adopted by the House:

"Your reference committee desires to support the recommendation that a brochure be published promptly which will outline the recommendations regarding the activities of Grievance Committees and that this brochure be given wide distribution.

"We recommend also that there be an appendix to this brochure in which additional, practical suggestions shall be included.

"We desire also to support the contention that there should be no equivocation concerning the naming of such committees and we recommend that a uniform policy be adopted in which they are called frankly 'Grievance Committees.'

"Finally, your reference committee recommends that because of the many variables, including the laws of the several states, which may influence the operations or procedures followed by State Grievance Committees, legal counsel shall be sought at the local level within the states."

#### *Medical Ethics*

A proposed revision of the "Principles of Medical Ethics and Precepts of Manners of the American Medical Association" was submitted to the House by the Council on Constitution and Bylaws. The following reference committee suggestion was adopted by the House:

"In discussion it became evident that there was need for wide distribution of these principles and careful study of the proposed changes not only by this Reference Committee but also by all members of the House and in fact all members of the Association. It seemed desirable also that the two Councils (Council on Constitution and Bylaws and the Judicial Council) should meet in joint session to consider these proposals. Your Reference Committee therefore recommends that these proposals be tabled for further consideration at the next annual session of the House to be held in Chicago in June, 1956.

"In the meantime, it is recommended that these proposals in their entirety be widely publicized and that consideration be given to publishing, in the Journal of the American Medical Association and also in state medical journals, these proposed changes in the Principles. It is also recommended that consideration be given to the mailing of copies to each member of the Association. Finally, your Reference Committee recommends that prior to the meeting in Chicago next June the Council on Constitution and Bylaws and the Judicial Council meet in joint session to consider these proposed changes."

In another action on revisions of medical ethics, the House also approved a plan requiring that all resolutions dealing with changes in the Principles of Medical Ethics shall be considered over a period between sessions of the House before final adoption.

#### *Miscellaneous Actions*

Among many other actions on a variety of other subjects, the House of Delegates also:

Recommended that the Board of Trustees give consideration to a dues increase for all Association members, with the increase designated for contribution to the American Medical Education Foundation;

Adopted a resolution on the practice of pathology declaring opposition to "the division of any branch of medical practice into so-called technical and professional services";

Recommended that further purchase and distribution of Salk polio vaccine be carried on by the presently available commercial avenues used for other immunizing agents, and that all vaccines, once proven, should enter the usual channels of distribution;

Approved appointment of an A.M.A. committee to study the prevention of highway accidents;

Commended the Women's Auxiliary of the A.M.A. for its financial contributions in support of medical education and requested the Auxiliary to continue its active efforts;

Commended the Sears Roebuck Foundation for its thoughtfulness and foresight in sponsoring the new plan for financial assistance in establishing medical practice units;

Received progress reports from the Commission on Medical Care Plans and from the A.M.A. Law Department on its studies of professional liability;

Approved a Board of Trustees recommendation that the State Journal Advertising Bureau be separated from the American Medical Association and be given full autonomy;

Congratulated the physicians of Iowa for their efforts in supporting the position that the practice of medicine is the right of the individual, and

Approved the selection of Minneapolis for the 1958 Clinical Meeting and Chicago for the 1960 Annual Meeting.

#### *Opening Session*

Dr. Elmer Hess, A.M.A. President, told the opening session of the House that complacency should be regarded as the medical profession's greatest enemy. Although good progress is being made in informing the public and the profession of the objectives of organized medicine, he said, educational efforts must be intensified and the list of physicians' tangible accomplishments for the health benefit of the public must be increased.

Dr. Leo H. Bartemeier, Chairman of the A.M.A. Council on Mental Health, told the House that the new Joint Commission on Mental Illness and Health will be ready to embark on its nation-wide study and re-evaluation of the human and economic problems of mental illness after the first of the year. Dr. Bartemeier, who is Chairman of the Board of Trustees of the Commission, appeared before the House to explain the functions of the new commission, which was organized to carry out the Mental Health Study Act passed by Congress earlier this year without a dissenting vote in either house.

#### *Medical Education Contributions*

The A.M.A. Board of Trustees announced that it again has appropriated \$100,000 to be contributed to the American Medical Education Foundation for the support of medical schools. The California Medical Association presented a \$25,000 check to the AMEF,

and the Utah State Medical Society announced an \$11,000 contribution.

George F. Lull, M.D.  
Secretary-General Manager  
American Medical Association

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## NEWS

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Newberry County Medical Society officers for 1956:  
President—K. D. Lake, Whitmire  
Secretary-Treasurer—J. C. Sease, Newberry  
Delegate—C. A. Pinner, Jr., Peak; H. E. Pinner, Peak.  
Alternate Delegates—B. M. Montgomery, Newberry;  
E. G. Able, Newberry.

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The new officers of the Charleston County Medical Society are:

R. W. Hancel, President  
Harold Pettit, Vice President  
R. M. Anderson, Secretary-Treasurer

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Dr. William H. Amspacher has become associated with Dr. David A. Wilson and Dr. J. Robert Thomason in the practice of general and thoracic surgery. Their offices are at 2 Medical Court, Greenville.

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M. L. Meadors, executive secretary of the South Carolina Medical Association, announced that the official dates of the 1956 convention would be May 14-17 at the Ocean Forest Hotel at Myrtle Beach.

It is anticipated that this will be the largest convention in the history of the association.

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Dr. Edward L. Proctor of Conway was among some 950 surgeons inducted as new Fellows of the American College of Surgeons in ceremonies closing the annual five-day Clinical Congress of the A.C.S. in Chicago.

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The Abbeville County Medical Association met in November and elected Dr. A. G. Oliver president for the coming year. Dr. Oliver and the other officers will take office on the first of next year and will serve until January 1, 1957.

Other officers elected included Dr. Judson E. Hair of Due West, Vice-president, and Dr. Albert P. Dickson, also of Due West, secretary.

A visitor at the meeting was Dr. J. J. Davis, Radiologist, from Anderson, who spoke to the association concerning the possibility of a set-up in Abbeville for x-Ray treatment at the Abbeville Hospital.

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A memorial service for the late Dr. D. F. Adcock, prominent Columbia physician, was held November 24 at the South Carolina Baptist Hospital.

Several tributes were given and a portrait of Doctor Adcock was unveiled in a ceremony performed by his daughter, Miss Jane Adcock.

Dr. W. R. Barron, chief of staff of the South Carolina Baptist Hospital, described the occasion as a significant one.

"Doctor Adcock represented the highest ideals of the medical profession," Doctor Barron said.

Doctor Adcock was a prominent member of the South Carolina Medical Association and the Columbia Medical Society, Doctor Barron related. "The friends and admirers of Doctor Adcock will be able to recall their many fine associations with him through this portrait," Doctor Barron said.

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Charleston County Council has decided to construct a \$500,000 Negro hospital to replace the present Cannon Street Hospital and Training School for Nurses.

County Manager Howard J. Sears was authorized by council's action to apply for federal funds totaling \$250,000 which the county intends to match for the hospital construction. The present facility has been unable to meet state licensing standards for several years.

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Dr. J. H. Gressette was elected president of the Orangeburg County Cancer Society at a recent re-organization meeting.

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Dr. J. H. Young of Anderson, who is associated with Dr. Carl Perry in the practice of general surgery, has been selected for membership in the American College of Surgeons.

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Dr. J. Richard Allison, Jr. has been in practice with his father Dr. J. Richard Allison since July in Columbia in the practice of Dermatology, after three years of training at the Dermatology Department of the University of Michigan, Ann Arbor, Michigan. He has just been notified that he has passed his second and final portion of the specialty board examination for his specialty.

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## ANNOUNCEMENTS

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*Twenty-Fourth Annual Assembly*  
SOUTHEASTERN SURGICAL CONGRESS

March 12, 13, 14, 15, 1956

The John Marshall Hotel  
Richmond, Virginia

## ATLANTA GRADUATE MEDICAL ASSEMBLY

February 20th - 22nd, 1956

### Speakers:

Dr. Philip K. Bondy, Woodbridge, Conn.; Dr. Charles C. Harrold, New York; Dr. Theodore Winship, Washington; Dr. Russell L. Dieks, Durham, N. C.; Dr. Willis J. Potts, Oak Park, Ill.; Dr. Clyde J. Randall, Buffalo; Dr. Alexander D. Langmuir, Atlanta; Dr. Jack D. Myers, Pittsburgh; Dr. Charles H. Hendricks, Cleveland; Dr. Ralph B. Cloward, Honolulu; Dr. Arnall Patz, Baltimore; Dr. Ivan L. Bennett, Jr., Baltimore; Dr. Meredith F. Campbell, Miami; Dr. Philip Thorek, Chicago; Dr. Samuel Kaplan, Cincinnati; Dr. Wilburt C. Davison, Durham, N. C.; Dr. George Saslow, Newton Highlands, Mass; Dr. Fred J. Hodges, Ann Arbor, Mich.; Dr. C. Walter Lillehei, Minneapolis.

## THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

February 27, 28, 29 and March 1, 1956

### Guest Speakers

Philip D. Woodbridge, M.D., Greenfield, Mass.  
*Anesthesiology*  
J. Lowry Miller, M.D., New York, N. Y.  
*Dermatology*  
Franz J. Ingelfinger, M.D., Boston, Mass.  
*Gastroenterology*  
John I. Brewer, M.D., Chicago, Ill.  
*Gynecology*  
S. Gilbert Blount, Jr., M.D., Denver, Colo.  
*Internal Medicine*  
Eugene A. Stead, Jr., M.D., Durham, N. C.  
*Internal Medicine*  
John H. Talbott, M.D., Buffalo, N. Y.  
*Internal Medicine*  
Lawrence S. Kubie, M.D., New York, N. Y.  
*Neuropsychiatry*  
Duncan E. Reid, M.D., Boston, Mass.  
*Obstetrics*  
Frank W. Newell, M.D., Chicago, Ill.  
*Ophthalmology*  
Claude N. Lambert, M.D., Chicago, Ill.  
*Orthopedic Surgery*  
A. C. Hilding, M.D., Duluth, Minn.  
*Otolaryngology*  
Alan R. Moritz, M.D., Cleveland, Ohio  
*Pathology*  
Joseph A. Johnston, M.D., Detroit, Mich.  
*Pediatrics*  
Philip J. Hodes, M.D., Philadelphia, Pa.  
*Radiology*  
Arthur H. Blakemore, M.D., New York, N. Y.  
*Surgery*  
Charles G. Child, III, M.D., Boston, Mass.  
*Surgery*  
Rubin H. Flocks, M.D., Iowa City, Iowa  
*Urology*

## (All-inclusive registration fee — \$20.00) THE POSTCLINICAL TOUR TO THE WEST INDIES AND CENTRAL AMERICA BY PLANE

Departure from New Orleans, March 2  
Secretary, Room 103, 1430 Tulane Avenue,  
New Orleans 12, La.

## 16TH ANNUAL CONGRESS ON INDUSTRIAL HEALTH

Sheraton-Cadillac Hotel, Detroit, Michigan  
January 23-24, 1956

### Principal Speakers:

Elmer Hess, M.D., President, American Medical Association  
Benson Ford, Vice President, Ford Motor Company

The Hawaii Medical Association's members are celebrating their organization's Hundredth Anniversary this coming April 22 to 29 in proper "Hawaii" as well as medical fashion. There will be a short but worthwhile professional program, a spectacular Centennial Celebration Pageant Tuesday night, and a traditional *luau* (Hawaiian feast to you Easterners) with Polynesian entertainment.

This is the best time of the year to visit America's island paradise — clear, balmy days and cool, refreshing nights; spring flowers in profusion on the ground and in the trees; lovely island m- - but you have the idea now, surely. Hawaii in the spring is always the greatest, and this is your chance to tie it into a professional meeting. It follows the American College of Physicians' session in Los Angeles, too. Write the Hawaii Medical Association, 510 South Beretania St., Honolulu 13, Hawaii, for reservations application forms.

## RE-ESTABLISHMENT OF RHEUMATIC FEVER CLINICS

The Greenville Clinic is due to be opened in January with the clinics being held on the mornings of the 1st. & 3rd. Thursdays. It will be located in the Greenville General Hospital with the same facilities used by the Orthopedic Clinic. Dr. Lonita Boggs has been appointed pediatrician in charge of the Greenville Clinic with the assistance of Dr. John Simmons. The public health nurse assigned to the Rheumatic Fever project for the Greenville Area is Miss Maude Lee Cleveland, formerly nursing supervisor in Oconee and Pickens Counties.

Details for the Columbia Clinic have not yet been completed. It is expected, however, that the clinics will be conducted at the Columbia Hospital, under the direction of Dr. William Weston, Jr. The exact day, time and place will be sent you when definitely determined. Mrs. Rosa Clarke, formerly Orthopedic District Nurse for the Charleston Area, has been assigned to the Rheumatic Fever project for the Columbia Area.

Both of these clinics are being set up on a semi-monthly basis to start, although it may be necessary later to conduct them more frequently as increasing case load warrants. Mrs. Clarke and Miss Cleveland will endeavor to make contact with all of the counties in their respective areas in the near future. Any courtesies extended these two ladies will be very much appreciated.

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#### 8TH ANNUAL CONVENTION INTERNATIONAL ACADEMY OF PROCTOLOGY

The 8th Annual Teaching Seminar of the International Academy of Proctology will be held at The Drake, Chicago, Illinois, April 23 to 26, 1956. The International, National, and Local Program Committees are planning an unusual seminar on anorectal and colon surgery. There will be special emphasis on anorectal presentations, and on panel discussions, as requested by those who attended the New York meeting in 1955.

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#### REGULAR CORPS EXAMINATION FOR MEDICAL OFFICERS UNITED STATES PUBLIC HEALTH SERVICE

A competitive examination for appointment of Medical Officers to the Regular Corps of the United States Public Health Service will be held on March 20, 21, and 22, 1956, at various places throughout the United States. A candidate will be tested at the examining center nearest his home. Applications must be received in the Public Health Service no later than February 10, 1956.

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#### FIFTH CONGRESS OF PAN AMERICAN MEDICAL WOMEN'S ALLIANCE

The Fifth Congress of the Pan-American Medical Women's Alliance will be held in Santiago and Vina del Mar, Chile, March 6 to 13, 1956. A pre and post Congress trip is planned to include visits to hospitals and medical clinics in Mexico, San Salvador, Panama, and Peru. A week's trip pre-Congress is planned in the lake region of southern Chile under the guidance of some of the Chilean women doctors. Following the Congress a week will be spent in La Paz, Bolivia visiting their medical projects among the Incas. Enroute to Lima there will be a day trip across Lake Titacaca and ample opportunity to explore the archeologic treasures of Cuzco and Macchu Picchu. Arrangements may be made to shorten or lengthen the planned itinerary. Papers on the subjects of:

Medical Problems of Women in Medicine, Infertility, Family Security, Cancer, and Miscellaneous Subjects.

Information may be obtained from the Secretary, Dr. Eva F. Dodge, 2124 West 11th Street, Little Rock, Arkansas, or from Program chairman, Dr. Eva Cutright, Wooster, Ohio.

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## DEATHS

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#### DR. OLIVER CARLISLE BENNETT

Dr. Oliver Carlisle Bennett, 65, died at his home on Rutledge Street.

Dr. Bennett graduated at Wofford College in 1911 and from the Medical College of South Carolina at Charleston in 1915. He was a veteran of World War I and served in France in 1918 and 1919.

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#### DR. CHARLES P. BENSON

Dr. Charles P. Benson of Landrum, veteran physician and long with the U. S. Veterans Administration Hospital Service, died November 17.

Dr. Benson was 76 and active in church and civic affairs.

He had been in declining health for several months and became seriously ill five days ago.

He was born and reared in the Travelers Rest section of Greenville County. A graduate of Emory University School of Medicine, he practiced medicine 10 years at Travelers Rest and then entered the Army Medical Corps during World War I.

He was separated from service with the rank of lieutenant colonel and entered hospital service with the Veterans Administration. He served on VA hospital staffs in Illinois and several other states and retired from this service eight years ago at the VA hospital in Columbia. He then moved to Landrum and resumed private practice.

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#### DR. JOHN HOMER MATHIAS

Dr. John Homer Mathias, 69, died of a heart attack at his office at Lexington, November 19.

Doctor Mathias attended Wofford College, was graduated from the Medical College of South Carolina in 1912, began the practice of medicine at Lexington in 1913 and continued it without interruption for more than 42 years at the same place.

His was a useful and distinguished career. By his kind words, his charitable acts, his self-sacrificing service, his readiness to attend anyone anywhere at any time, he endeared himself to the people of practically every section of Lexington County.

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#### DR. JOSEPH LESLIE POWE

Dr. Joseph Leslie Powe, 73, died November 25 at a Hartsville hospital after several weeks' illness.

He was graduated from the Medical College of South Carolina in 1904 and was a practicing physician. Until his health failed he operated the Powe Hospital.

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## CORRESPONDENCE

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To the Editor—

Relative to H-1411, Some Remarks in Opposition:

This bill would affect every physician in South Carolina, not just ophthalmologists. The bill would equal a return to 'Class B' medical schools. The *best* optometrical colleges require five years, after finishing high school, for graduation with the "degree" of O. D.—Doctor of Optometry. That includes undergraduate and graduate college. The best in ophthalmology requires *eleven* years after high school. Many of us had thirteen years. Many optometrists did not even have five years. Now, as the present well-trained group of ophthalmologists dies off they are not going to be replaced with men of equal training *in this state* if this bill becomes law. Because, why should a man devote eleven to thirteen years of his life to his specialty only to be declared, legally, the same as the five-year optometrists! Then to what well-trained ophthalmologists will the general physician refer his (difficult) eye cases?

Optometrists would have the public believe the eye physicians want to monopolize the work of examining school children's eyes. That is not true. WE DO NOT CARE HOW MANY PEOPLE OPTOMETRISTS EXAMINE FOR GLASSES so long as people go to them voluntarily, in open competition, without being tricked or coerced. You see, what the optometrists would like is this: when any employee of the state government (school nurse, teacher, Highway Dept., Police or Fire Dept., D. P. W. worker, or Health Dept., etc.) refers a patient for an eye examination, have the referrer give the patient a list of available optometrists and ophthalmologists and let the patient go where he wants to go without any advice from the referrer as to who might be best. But *our* position is this. The referrer has probably referred many patients before. He probably knows from sad experience which ophthalmologists or optometrists available have proven satisfactory and which have proven unsatisfactory. And *we* see nothing wrong in the referrer giving the (often ignorant) patient the benefit of his advice. Rather, we feel he should. If this advice reacts in favor of the optometrists it is all right with us. If the referrer thinks an available optometrist is as good or better than the available ophthalmologist, we feel he should try to direct the patient away from the eye physician. Can you think of anything fairer? But the optometrists are afraid of this open competition. They don't want anyone free to tell the patient the difference between optometry and ophthalmology.

The optometrists argue that they want to be declared able to determine or state that a patient's eyes are "normal"—that, in looking at the fundi, if obvious pathology is present they can see it as well as anybody else and, if it is present, they will refer the patient to

an eye physician. And this is partly true. They can see obvious pathology, but the catch comes when the pathology is *not obvious*. For instance, a patient may complain that one of his eyelids drooped a little two weeks ago or that he saw double for a day. By the time the patient gets around to being examined his eyes may be perfectly normal. What could the the optometrist do? He could only state that there is no pathology present and send the patient on in blissful ignorance, perhaps, that he really had diabetes, lead poisoning, syphilis, myasthenia gravis, multiple sclerosis, hyperthyroidism, brain tumor, etc.—and all of these things the ophthalmologist would know to check for. The optometrists don't know enough to realize these possibilities exist. It's the old story of a little learning being a dangerous thing.

Under the proposed bill a physician would frequently not be free to refer a patient to an ophthalmologist he knew to be indicated but, rather, to an ophthalmologist or an optometrist. This would affect physicians helping out in Health Departments, school screening examinations, etc.

This bill would result in people being put on tax-relief rolls who did not belong there: if an optometrist certified their vision could not be made better than 20/200 the client would be visually eligible for relief although an eye physician might improve his vision by treatment or surgery. But the D. P. W. would have to accept the optometrist's word.

This bill does not affect eye physicians financially. Almost all patients referred by schools, D. P. W., etc., are charity or part charity. Regular patients are taken by their families to the doctors of their choice. And it is difficult to persuade the legislature that we are opposing this bill primarily in the public interest, and not in our own.

There are many lawyers in the legislature. What would they say if some "colleges" started turning out thousands of two-year "lawyers" — lawyers who claimed to be proficient in most cases but not in the really difficult. Such "two-year" lawyers would be to regular lawyers what these optometrists are to eye physicians.

This bill represents an effort to acquire membership in one of the learned professions by edict rather than by training. It used to be that almost anybody could, with public approval, set up to practice medicine, practice law, teach, preach, etc. With much effort and expense, educational standards were elevated to their present status. It seems a shame that one group, for selfish reasons, wants to lower them.

Finally, and perhaps most important of all, if this bill is going to pass the optometrists will be in a position to jeopardize their patient's health and, so should be made subject to the same malpractice laws as are physicians. At present, people have no recourse if an optometrist puts glasses on them when, in reality, they are going blind from glaucoma, or etc.

—Norman Eaddy, M. D.

Sumter, S. C.

## THE GRANT BY THE FORD FOUNDATION

To the Editor:

The September, 1955, issue of your excellent Journal has been brought to our attention because of the editorial on page 322 entitled "Bashful Radiology." I am writing you because of its gentle chiding of radiologists which is based on misinformation.

The American College of Radiology has not retained or employed the J. Walter Thompson and Associates, or any other firm, for public relations, or for any purpose whatsoever.

About a year ago, the Medical Division of the Eastman Kodak Company informed the American College of Radiology that they were expanding their program of public education about the various medical specialties, and especially about radiology. They felt that in this atomic age many people were interested in and wanted to know more about the effects of radiation energy and particularly about the proper and safe use of x-ray in diagnosis and treatment. The public relations consultants for the Eastman Kodak Company are J. Walter Thompson and Associates.

The representatives of both the Eastman Kodak Company and J. Walter Thompson came to the College and outlined their ideas to the Commission on Public Relations. They wanted to develop sound and accurate means for the dissemination of radiological news and asked that the College check their material for accuracy and appropriateness. To this end, they have been most careful and cooperative in any suggestions that we have made on material relating to our specialty.

The purpose of the fact sheet was to give newspaper editors and particularly, neighborhood and weekly newspaper editors, accurate definitions of radiological terms to assist them in reporting news in this field.

It is our belief that in acting as consultants we are in accord with what the American Medical Association, the Academy of General Practice, the American College of Physicians, the American College of Surgeons and others are doing to present medicine in a favorable and accurate light to the general public through news releases, the radio, and television.

We also wish to emphasize that the radiological aspect of the Eastman Kodak program is only one of the facets of their general educational program. The College is interested in seeing that material related to radiology is prepared in a true and honest manner that is beneficial to medicine as a whole.

Sincerely yours,

Wendell G. Scott, M.D.

Chairman, Commission on Public Relations  
American College of Radiology

"The grant of funds by the Ford Foundation to the voluntary nonprofit hospitals of our nation will result in tremendous improvement in hospital service to our people. It is almost impossible to grasp the full potentialities of this program.

"The grant is completely without precedent in our voluntary hospital system. The hospitals concerned now have an immense responsibility to translate this gift into maximum benefits for the people of our nation, and we are sure that they will prove equal to this task.

"We applaud the emphasis placed by the Foundation on local determination of method to be used as each hospital seeks to improve and extend its services to the public under the terms of the grants. The flexibility which the Foundation has put into this program will permit hospital trustees to take full advantage of their intimate knowledge of their communities and their needs.

"Thousands of projects which hospitals all over the country have deferred because they did not have the money to initiate them now will be possible because of the wise generosity of the Foundation.

"We believe that the voluntary hospital system has provided the American public with the best hospital care in the world. These grants will strengthen this voluntary system and the true beneficiary will be the American people."

Ray E. Brown, President

American Hospital Association



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## BOOK REVIEWS

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*Henry Ford Hospital International Symposium on CARDIOVASCULAR SURGERY.* Edited by Conrad R. Lam, M. D., Surgeon-in-Charge, Division of Thoracic Surgery, Henry Ford Hospital. W. B. Saunders Company, Philadelphia. Price \$12.75.

This book is definitely recommended for any who are interested in the finer details of the physical aspects of the diagnosis of congenital and acquired cardiovascular diseases, both central and peripheral, and in the treatment of those that are amenable to surgical therapy in particular. It consists of extensive discussions of various topics by about 60 eminent authorities in the field. The authorities comprise surgeons, cardiologists, internists, pediatricians and scientists in the ancillary fields.

The photographs, drawings, roentgenograms and grafts are of good quality and supplement admirably the written text.

Edward F. Parker, M. D.

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*POLIO PIONEERS*, by Dorothy and Philip Sterling. Doubleday & Co. New York, 1955. Price \$2.75.

This is a book for young readers which expounds accurately and pleasantly the background and development of the Salk vaccine for poliomyelitis.

It has a virtue in not exploiting too vigorously the story of the Patron Saint or his and Mr. O'Connor's organization.

It can be recommended for all readers. Probably there should be more of this sound exposition of scientific matters for the young to counteract the unscientific "scientific nonsense" (at least, as of today) with which the growing mind is filled.

J. I. W.

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*DIFFERENTIAL DIAGNOSIS. THE INTERPRETATION OF CLINICAL EVIDENCE*, by A. McGehee Harvey, M. D., and James Bordley, III, M. D., W. B. Saunders Company, Philadelphia, 1955. Price \$11.00.

This book, by two well known internists, presents an unusual approach to the problems of differential diagnosis. Observations regarding many of the more important clinical signs and symptoms and their occurrence and relationships to disease entities in which they prominently occur are recorded.

Sub-sections devoted to each symptom or sign are detailed discussions of the differential diagnosis to be considered, and each sub-section is followed by a number of illustrative cases with brief presentation of pathologic findings.

Such problems as jaundice, sudden death, chest pain, and fever of obscure origin, among others, are discussed.

A final section presenting problem case histories with discussion and pathologic reports appended separately permit the reader to test his own differential diagnostic acumen.

The form of presentation is different and novel. The approach to differential diagnosis is quite unlike that in the usual textbook presentation.

The book appears to have its main value in its possible use as a teaching text for students. It does not appear to be of particular value for reference.

Kelly McKee, M. D.

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*MANAGEMENT OF ADDICTIONS.* By Edward Podolsky, M. D. The Philosophical Library, N. Y., 1955.

This book contains a collection of thirty five articles written by many well-known workers in the fields of alcoholism and barbiturate and narcotic addiction. The bulk of the material contains a study of alcoholism, perceived from every possible angle of clinical research and evaluation.

The contributions range from social workers and psychiatrists to neurologists, sociologists, bio-chemists and neuro-physiologists. The author himself offers a foreword note, which is unifying and stimulating, although too short and somewhat undeveloped. In a book of this type with many approaches and divergent ideas, it would seem essential that an overall attempt to integrate the material be made.

However, this criticism does not at all detract from the richness of the whole book. The articles are many, but well-chosen and not lengthy. Equal measure is given to the newer endocrinological, bio-chemical researches of the alcoholic alongside of the manifold psychotherapeutic studies. Special hospitals and sanatoria for alcoholics are discussed to some degree. This is of especial significance for the psychiatric and medical physician, since it suggests a need long cherished by the medical profession as a whole. It is a well-known fact now, that alcoholism and other drug addictions require long and specialized institutional care, much like a state hospital for seriously ill psychotic patients.

The stress on group psychotherapy for alcoholic (and other drug addicts), answers a potential challenge to the unscientific successes of Alcoholic Anonymous. The demonstration of much greater and deeper therapeutic success through organized group psychotherapy would tend to prove why A A has only limited powers to effect a deep cure through its method of group acceptance and inspirationalism.

The articles on hypoglycemia are quite thought-provoking as an explanation of the causes of anxiety and tension in alcoholics.

The close relationship between barbiturate and alcoholic addiction is revealing, since it has been conversely found that narcotic addicts rarely become addicted either to alcohol or to barbiturates.

Since this book covers all aspects of medicine, it would be instructive to all students and practitioners of medicine.

Norton L. Williams, M. D.

*COUNSELING IN MEDICAL GENETICS*, Sheldon C. Reed. W. B. Saunders Co., Phila. Price \$4.00.

This small book discusses in a breezy, somewhat colloquial style the problems of inheritance of undesirable characteristics such as mongolism, albinism, mucoviscidosis, feeble-mindedness, and erythroblastosis. There are tables and figures, data on laws and clinics, and in the appendix a useful list of frequencies of inheritance, with various explanatory notes.

The reviewer gets the impression that there is a good deal of latitude in the estimations and that all statements are rather approximate in accuracy. Even if he must leave several handy loopholes, the physician could use this book to good advantage in attempting to answer the many questions on the chances of appearance of hereditary characteristics.

J. I. W.

*THE PRACTICE OF DYNAMIC PSYCHIATRY*. Jules H. Masserman, M. D.—790 pages. W. B. Saunders Co., Philadelphia, 1955. Price \$12.00

The teaching and learning process has never been an easy one either for the psychiatric instructor or for the psychiatric resident. Literature in this field abounds in an amazing display of writings, often not too profound. Theories and personal opinions often are so varied as to confuse even the experienced clinician.

Dr. Masserman's new book, although a teaching textbook, presents a refreshing and vigorous new approach to the teaching of modern psychiatry. He rejects the traditional didactic and pedagogic methods so common in most basic psychiatric texts. Instead he successfully introduces the technique of trying to understand a human being adapting himself under varying and stressful mental and emotional situations. Each one of the classical diagnostic categories is lucidly and fully elaborated in prose style but still within the limits of clinical presentation. He frees his reader from the burden of learning only of diagnostic type and persistently emphasizes the importance of knowing the patient intimately.

The author also sincerely attempts to harmonize the apparently conflicting biologic and psychologic aspects of human behavior. The psychiatric organicists and the psychoanalytic groundwork toward helping people to become happier, more productive and adjusted. In keeping with this, a great part of the work, starting with the author's own modest survey of his own theory of biodynamics, deals with simplified methods of psychotherapy. Instead of weighting the book with descriptions of clinical conditions and therapeutic methods, he elaborates on "techniques, tactics and strategy of therapy"—all designed to remotivate a person whether it is the neurotic patient himself with

phobias or a psychomatic disorder, or the nonunderstanding members of a schizophrenic's family.

This book, being a comprehensive survey of much worthwhile psychiatric material, can be of great help to not only psychiatrists and psychiatric residents but also to internists, general practitioners as well. It would be of considerable interest to judges, lawyers and ministers and other specialists seriously working to help people mutually and emotionally.

The chapters on "Self and Universe" and "History of Psychotherapy" are particularly enlightening and amusing.

I feel that this book is not designed particularly for medical students as an elementary text but only for those well-grounded in psychiatric fundamentals or for those deeply interested in this work. To the uninitiated it could produce only confusion but to those who have a taste for this work, it could prove quite enriching.

Norton L. Williams, M. D.



## STEVENS-JOHNSON SYNDROME

(Continued from page 13)

### Comment:

The importance of the early diagnosis of Stevens-Johnson syndrome cannot be over emphasized. There is always the possibility of such complications as panophthalmitis with resulting visual defects and permanent blindness. In some instances the recurrences may be so frequent as to give the disorder almost a chronic aspect. The prognosis in the more severe cases depends upon the constitutional involvement as well as the early diagnosis.

### REFERENCES

- (1) Stevens, A. M. and Johnson, F. C. A New Eruptive Fever Associated with Stomatitis and Ophthalmia: *Am. J. Dis. Child.* 24: 526, 1922.
- (2) Becker, S. W. and Obermayer M. E.: *Modern Derm. and Syphilology*, Ed. 1. Phil., J. B. Lippincott Co., 1940, Erythema Multiforme, p. 94.

# SCISSORISMS

## THE SCIENTIFIC MEDICAL

*(With apologies to the Shade of W. S. Gilbert)  
Poem plucked from The Prescriber as fine  
example of the heights in medical verse*

I am the very model of the Scientific Medical,  
I know each nerve and artery, each ligament and  
pedicle;  
My knowledge has been built by evolutionary pro-  
cesses  
From Galen and Hippocrates to present-day Colos-  
suses.  
I've studied all the endocrines and know the various  
offices  
Of pancreas and thyroid, or of thymus and hypophysis;  
I know the suprarenals, too and all that they're re-  
lated to—  
(-lated to, -lated to-ah!)

How benighted were the medicos who lived in 1822!

I know the pH value of ional acidity;  
I calculate percentages with wonderful rapidity;  
And when it comes to artery or ligament or pedicle  
I am the very model of a scientific medical.

I'm particularly expert at a Wassermann analysis;  
I hunt for protozoa in a patient with paralysis;  
The chemistry of insulin's a subject that I revel in,  
And antitoxin therapy I'm just the very devil in.  
I know the role of calcium in various forms of tetany;  
I understand trypanosomes, although I've never met  
any;

And I've the latest news on perineural sympa-  
thectomy—

(-pathectomy-ectomy-ah, I have it!)

My knowledge often bringing in a good substantial  
cheque to me!

I'm very strong on vitamins and matters dietetical;  
I know the graphie formulae of remedies synthetical;  
And when it comes to artery or ligament or pedicle  
I'm just the very pattern of a scientific medical.

(More slowly)

When I've acquired some knowledge about matters  
pharmaceutical,

When I can diagnose a little deeper than the cuticle,  
When simple indigestion has become a trifle clear to  
me,

When babies with the colic are no more a source of  
fear to me,

When I can write a recipe with ord'nary galenicals,  
When I have learned the doses of the various arseni-  
cals,

When highbrow scientific lore no longer needs a  
missioner—

(missioner-condi- - -practi- - -I've got it!)

You'll then consult me safely as a general practitioner!

For my scientific knowledge, though I'm always up to  
date with it,

Has kept me back in practice, and I'm just a little  
late with it;

But when it comes to artery or ligament or pedicle  
You'll find I'm just the model of a scientific medical.

T. S.

From *Tonics and Sedatives*

It is proposed that a national group be set up by  
the President of the United States to regulate and ap-  
prove automobile safety. This group should be granted  
power to prevent public sale of vehicles that do not  
meet requirements of safety design. This group should  
consist of persons in all related fields, appointed on  
the basis of ability and experience. This arrangement  
would allow the industry to pool safety ideas and sub-  
mit to the national committee those ideas that the  
manufacturers believe would afford the greatest degree  
of safety with the smallest cost to the public. There  
would be no competitive aspect to this feature of au-  
tomobile construction, since adopted measures would be  
of standard design. There would be no financial risk,  
for the same production costs would be transmitted by  
all manufacturers directly to the public.

The protection of the public through legislative con-  
trol of safety measures is an accepted part of our  
daily life. One cannot buy food that has not passed  
inspection. Drugs must be approved before being put  
on the market. Dangerous drugs cannot be dispensed  
without prescription by a licensed physician. Airlines  
and railroads cannot operate without fulfilling safety  
requirements. A new home cannot be built and oc-  
cupied without passing numerous safety inspections.  
Automobiles cannot be driven without adequate lights  
and brakes, nor can they be operated by drivers who  
have not passed a state examination. There are count-  
less examples of controls being exerted in behalf of  
public safety, yet we allow the automobile industry  
to continue manufacture of a product known to be  
faulty in safety design.

We can expect, and we will encounter, resistance to  
the suggestions and recommendations. However, we  
who see this grim pattern reenacted daily realize that  
it is our duty to demand that the public be protected  
as in any national health problem. If this nation were  
confronted with an epidemic disease that took the  
lives of 38,000 persons in one year, and the medical  
profession did not take steps to control the situation,  
there would be a congressional investigation. Possibly  
that is the only solution to the problem of automobile  
deaths. However, let us hope that with concentrated  
effort we ourselves can effect the cure for the head  
injury epidemic. The only cure is prevention.

C. H. Sheldon, J.A.M.A. 159-

# A Combined Neuro-Effector and Ganglion Inhibitor

*Pro-Banthine consistently controls gastrointestinal hypermotility and spasm and the attendant symptoms.*

Pro-Banthine is an improved anticholinergic compound. Its unique pharmacologic properties are a decided advance in the control of the most common symptoms of smooth muscle spasm in all segments of the gastrointestinal tract.

By controlling excess motility of the gastrointestinal tract, Pro-Banthine has found wide use<sup>1</sup> in the treatment of peptic ulcer, functional diarrheas, regional enteritis and ulcerative colitis. It

is also valuable in the treatment of pylorospasm and spasm of the sphincter of Oddi.

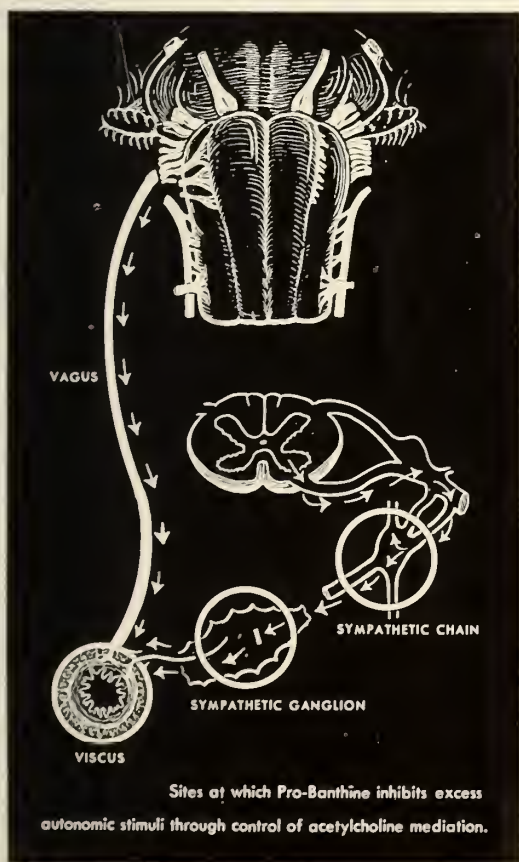
Roback and Beal<sup>2</sup> found that Pro-Banthine orally was an "inhibitor of spontaneous and histamine-stimulated gastric secretion" which "resulted in marked and prolonged inhibition of the motility of the stomach, jejunum, and colon. . ."

Therapy with Pro-Banthine is remarkably free from reactions associated with parasympathetic inhibition. Dryness of the mouth and blurred vision are much less common with Pro-Banthine than with other potent anticholinergic agents.

In Roback and Beal's<sup>2</sup> series "Side effects were almost entirely absent in single doses of 30 or 40 mg. . ."

Pro-Banthine ( $\beta$ -diisopropylaminoethyl xanthene-9-carboxylate methobromide, brand of propantheline bromide) is available in three dosage forms: sugar-coated tablets of 15 mg.; sugar-coated tablets of 15 mg. of Pro-Banthine with 15 mg. of phenobarbital, for use when anxiety and tension are complicating factors; ampuls of 30 mg., for more rapid effects and in instances when oral medication is impractical or impossible.

For the average patient one tablet of Pro-Banthine (15 mg.) with each meal and two tablets (30 mg.) at bedtime will be adequate. G. D. Searle & Co., Research in the Service of Medicine.



1. Schwartz I. R.; Lehman, E.; Ostrove, R., and Seibel, J. M.: *Gastroenterology* 25:416 (Nov.) 1953.
2. Roback, R. A., and Beal, J. M.: *Gastroenterology* 25:24 (Sept.) 1953.

Clinical trial packages of Pro-Banthine and the new booklet, "Case Histories of Anticholinergic Action," are available on request to . . .

**SEARLE**

P. O. Box 5110-B-27  
Chicago 80, Illinois

It is reported that after six years the powerful hormones, cortisone, ACTH, hydrocortisone, are being used as therapy in a hundred diseases, as the remedy of choice in forty-five. Yet these hormones are admitted to be not curative but merely corrective or suppressive. In spite of their often dramatic effects in the rheumatic diseases they do not change the disease processes themselves, nor do they provide a clue to what initiated them. They have been described by Hench as dampening rather than extinguishing the fire. They provide "an asbestos suit behind which the patient, like some Biblical Shadrach, Meshach or Abednego, protects his tissues from the fire. If this protection is removed prematurely, before the fire has spent itself, the patient and his tissues will react again to the burning. But if the protection is not discarded until the natural duration of the fire is over, the patient remains largely free of symptoms and apparently 'well.'" Angevine said of these hormones at a 1951 conference: "We are putting coins in the music boxes and out comes the music, but we have no idea of what we are doing." Only more, and more profound, research will put this powerful therapy on a rational rather than an empirical base.

#### A PUBLIC RELATIONS IDEA THAT MAY BE PRINTED ON THE BACK OF YOUR MONTHLY STATEMENTS

##### TO MY PATIENTS:

Since charges made for professional services vary greatly, I want you to know my policy in determining fees.

I have *no set fee* for any office, home, hospital or telephone consultation. In setting my fee for any of these services, I consider the *time of day or night* in which the service is rendered, the *time required* for each service, the *cost of medicines* used, the *manner* in which these are administered, and *other professional aspects* of each service.

For completion of insurance claim forms, attorney's reports, employer's absentee records, letters of case history, etc., there is a nominal filing fee commensurate with the detail requested and the time consumed.

For some services I make no charge; examples are completion of short claim forms and phone calls relating to the progress of an illness under treatment. In certain situations, however, appropriate charges are made for telephone consultations.

I invite you to discuss frankly with me any questions regarding my services or my fees. The best medical service is based on a friendly, mutual understanding between doctor and patient.

-----, M.D.

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# The Journal

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NUMBER 2

## USE AND ABUSE OF ANTIBIOTICS

### A PANEL DISCUSSION

**D**r. Walton: There are many vexing problems in this topic. I think that certainly a good part of it is due to the extreme multiplicity of items which we call antibiotics. In the sulfonamide field, there has been a period of relative quiescence. Of course, there are many problems in that area too, but since the introduction of sulfadiazine about fourteen or fifteen years ago, we have had only modest changes among the newer sulfonamides. I don't know of anyone who thinks that any of the newer antibiotics are much more important than the original penicillin, but we certainly have need for the different varieties which have been coming from all diverse sources. Besides the fact that we have a good many antibiotics, we also have other complicating features such as the fact that we do depend on our drug companies to manufacture these. They are in business and one of the commercial features which every sales department recognizes is that if they can get our attention focused on one particular name they have secured an important commercial advantage. Accordingly, we have a great many more names in this field than we have drugs, and we have a lot of drugs. Now, the panel members, in my preliminary discussion with them, showed that they confine their interest to the few important antibiotics, and also in discussing it with them, we had agreed that we would use the names with which people were most familiar. Now you know the situation with proprietary drugs. You have a generic name, sometimes called a monograph name,

and eventually over a period of decades, that might become better known than others, but there are also better known proprietary names which we shall use so everyone interested will know what we are talking about. Now the plan of the panel is to have a complete discussion on the topic in which each member is interested and after the three have summarized their topics, the floor will be open for questions. First we will hear from Dr. Parker. He intends to take up a subject of considerable interest, that is the development of staphylococcus strains which are resistant to penicillin and even to other antibiotics.

**Dr. Parker:** Today, many hemolytic staphylococcal infections are part of the overall problem of superimposed infection coincident to antibiotic therapy. One of the earliest reports on the occurrence of this phenomenon was made by Appelbaum about 1945. He reported several patients with pneumococcal pneumonia who initially responded satisfactorily to penicillin therapy but who subsequently had fever, cough and leukocytosis. At that point, sputum culture showed a predominance of gram-negative organisms. After streptomycin was added to the antibiotic therapy, the patients became asymptomatic and recovered uneventfully.

We first became concerned with superimposed infections in about 1950 when one of our patients with pneumococcal meningitis and another with pneumococcal pneumonia, both treated with chloramphenicol with initial satisfactory responses, subsequently developed overwhelming hemolytic staphylococcus aureus infections and died.

In 1950, Finland reported another example of superimposed infection secondary to antibiotic treatment. In a series of 91 patients who

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Presented at the Annual Meeting of the South Carolina Medical Association, May 12, 1955, at Charleston, S. C., by Dr. R. P. Walton, Charleston, (Moderator), Dr. Robert T. Parker, Baltimore, Dr. William R. Sandusky, Charlottesville, Dr. Alexander Schaffer, Baltimore.

had pneumococcal pneumonia and were treated with oxytetracycline, there were five patients who developed superimposed hemolytic staphylococcal infections and died.

The cause of this type of infections is not too difficult to understand when we recall that penicillin and the newer tetracycline group of drugs have the ability to wipe out practically all of the gram-positive organisms which are normal inhabitants of the respiratory passages. This then leaves open the field of battle, one might say, to the resistant staphylococci and gram-negative organisms. More and more investigators have noticed this type of superimposed infection and have become aware of the seriousness of the situation. With the development of newer drugs, we find resistance to those as well as to the older ones such as penicillin. When penicillin first became available, a few strains of hemolytic staphylococci which were isolated showed resistance. This resistance has been shown to be related to the manufacture of penicillinase by the organism. As time has gone on, it has been noted that the incidence of penicillin resistant strains has gradually increased, and this experience has been true throughout the country. For example, in one hospital in 1946, only 12 per cent of the strains of hemolytic staphylococcus aureus were penicillin resistant. Within three years time, this had risen to 60 per cent. With the introduction of the newer broad spectrum drugs, a similar pattern of resistance has developed. For example, at the Mayo Clinic in about 1949, all of the strains of hemolytic staphylococci which were isolated were sensitive to chlortetracycline and oxytetracycline. Within three years time, 45 per cent of the isolated strains were resistant to both of those antibiotics. About a year ago, we encountered an example of this type of superimposed infection, secondary to the use of tetracycline.

We were conducting a controlled study comparing the use of chlortetracycline and tetracycline in the treatment of pneumococcal lobar pneumonia. There were 24 patients in each group. The drugs were administered in a blind fashion. The most serious complication encountered occurred when a 53 year old colored male was admitted with a typical

history of pneumococcal lobar pneumonia. His blood culture was positive (type 3 pneumococci); his white blood cell count was 27,500. He was started on therapy and made a very satisfactory response. However, about the twelfth day of disease, he began to have fever. On the thirteenth day, he began to have severe, profuse, greenish-watery diarrhea, averaging approximately 14 stools in 12 hours. Likewise, the onset of nausea and vomiting occurred at about that time. Being alerted to this type of complication from antibiotic therapy, we suggested immediately that a smear of the fecal material be made; a gram stain smear showed the presence of myriads of staphylococci. Without awaiting the results of a stool culture (incidentally this showed a heavy growth of hemolytic staphylococci), tetracycline treatment was discontinued, and the patient was given erythromycin intravenously and, subsequently, orally. As you can see, he responded satisfactorily.

Continuing from that point, in the past six months we have been plagued with a large number of hemolytic staphylococcus aureus infections. This first appeared in the obstetrical service with subsequent cases in the pediatric service, and more recently, in the surgical service. Within the past two months, I have been aware of three patients who have had hemolytic staphylococcus aureus infections secondary to neurosurgical procedures. In one instance, the patient developed an acute endocarditis and died. The second patient also died. The third individual has recovered.

The most disconcerting phase of this problem is the antibiotic resistance pattern of these staphylococci. The strains we have isolated are resistant to all of the antibiotics with the exception of chloramphenicol and erythromycin. In other institutions, the pattern has followed a somewhat different course. However, most of them have reported that the staphylococci are sensitive to those two antibiotics, probably for two reasons. First, concerning erythromycin, it is the last to be added to our armamentarium. Secondly, concerning chloramphenicol, the previous widespread usage was rather drastically cut coincident to the alarm over blood dyscrasias. For these reasons, this

variety of organism remains sensitive to those two antibiotics.

The problem, of course, is tied up also with the question of cross-infections in hospitals. As you can understand, hospital personnel are frequently harboring this organism (staphylococci) in their noses and throats. An example of the importance of this is reported by the studies of Dowling and Leper in Chicago. They have found, and others have also found, that patients coming into a hospital environment will begin to have staphylococci in their throats and nasal passages. In Chicago, prior to the introduction of erythromycin all of the strains of staphylococcus aureus isolated from such patients were sensitive to erythromycin. Within one month after introduction of the drug, 40 per cent of the staphylococci became resistant to erythromycin and within four months, 60 per cent became resistant to erythromycin. Dowling and Leper followed the patients for periods up to 17 months after discharge from the hospital. At that time, 20 per cent of the strains of hemolytic staphylococcus aureus isolated were still resistant to erythromycin.

We have then a very serious problem, the problem of superimposed infections.

*Dr. Walton:* Thank you, Dr. Parker. Next, Dr. Schaffer will discuss some of the prolonged continued uses of antibiotics in such conditions as prophylaxis or rheumatic fever.

*Dr. Schaffer:* I would like to preface my remarks by saying that in panel discussions headed "The Use and Abuse of Antibiotics" what very frequently happens is that the discussion degenerates into something which should be entitled "The Abuse of the Audience." These are the individuals who are supposed to overuse the drugs to such an extent that they are being abused. I, of course, couldn't possibly turn this discussion into anything of that nature because I too am a practicing pediatrician and anything which I said along those lines would be applicable to me as well.

In the use of antibiotics, there is at the moment, very little disagreement about their use in serious infections in childhood. Nearly everyone is agreed not only that antibiotic

treatment must be used, but which antibiotic should be used in each individual type of infection. This is not true invariably by any means, but for most of the major infections we are in thorough harmony. There is minor difference of opinion between those who think that pneumococcal meningitis ought to be treated with massive doses of penicillin alone and those who think they get equally good results with, let us say, aureomycin or terramycin. It is pretty generally agreed that influenza meningitis ought to be treated with chloroamphenicol, but there are still those who feel that even in this infection just about as good results can be achieved with aureomycin, terramycin, or achromycin. The consensus would probably be that chloroamphenicol is the drug of choice for influenza meningitis. In tuberculosis there are differences of opinion as to what drug or drugs should be used with streptomycin. Our experience has not been prolonged enough for us to come up with an absolutely assured answer that streptomycin should be used with para-amino-salicylic acid, or isoniazid, or with both of those in combination with the streptomycin, but it is certain that streptomycin is the basic drug of choice for tuberculosis. With the hemolytic streptococcus this is a problem of somewhat greater numerical importance. In addition the consequences of streptococcus infection are rarely, but often enough, serious, in the form of acute hemorrhagic nephritis or rheumatic fever. The question of what one does at the onset of streptococcal infection will therefore become more important than what one does at the onset of a pneumococcal infection, or in general of an infection with H. influenza. Some of these also may involve the lungs or the meninges, but in general complications with these organisms are neither so frequent nor so serious as are those following streptococcal infections.

Under the title of "The Abuse of Antibiotics" what is almost invariably stressed is its abuse with respect to over-usage, and I agree there is a good deal of over-use of antibiotics. One ought to make great effort to discriminate between those infections which probably will be helped considerably by antibiotics and those which won't, or, even better, to discriminate

between those infections which are going to get well without antibiotics and those infections which are not going to get well without antibiotics. I become somewhat annoyed when I find that almost all of the children I see in consultation with obvious viral gastroenteritis, "intestinal flu", or whatever you want to call it, have been treated with sulfasuxidine and chloroamphenicol and oral streptomycin and what have you, when it should be perfectly obvious by now that these viral infections are not at all influenced by antibiotics. I don't mean to say that no viral infections are, but these viral infections are not. Similarly, the upper respiratory infections—one must make a determined effort to differentiate between the upper respiratory infections which are due to streptococci and those which are not. It is true that careful studies comparing the guesses of good clinicians with the laboratory results have shown that the percentage of error is extraordinarily high. Nevertheless, if there is exudate on the tonsils, if there is exudate on the pharynx, if there is cervical node enlargement and if the throat is sore one can be highly suspicious of streptococcus, and then one must use the appropriate antibiotic. There is still the feeling that penicillin is the drug of choice over the broad spectrum antibiotics in streptococcus infection but if one reads the literature carefully, one can't find too much to back up this rather vague feeling. Perhaps, with broad spectrum antibiotics, positive cultures persist in the throat a little bit longer than they do with parenteral or with high dosage oral penicillin.

It has taken me a long time to get around to the subject which Dr. Walton wanted me to talk about, but there were some things on my mind that I had to say first. I think that one of the abuses which we don't talk enough about in panel discussions of "The Uses and Abuses of Antibiotics" is the under-usage of antibiotics. We are appalled by the notion that there are some 372 tons of penicillin manufactured in the United States per year now, practically all of which I presume must be used, or the pharmacological houses wouldn't make that much. We are appalled by the figure that was quoted at the antibiotic symposium

this year by the Food and Drug Administrator that 40% of all of our prescriptions are now for antibiotics. We probably should be appalled.

Nevertheless, there are certain conditions for which antibiotics haven't been used enough. One of these is for the prophylaxis of rheumatic fever. For a number of years we have been preventing, or attempting to prevent recurrences of rheumatic fever. (I should have said first that one should attempt to prevent the original attack of rheumatic fever by the quick use of antibiotics, preferably penicillin, at the first sign of what one thinks is a streptococcal upper respiratory infection.) After rheumatic fever has developed the problem of prophylaxis or prevention of recurrence comes up, and we should by now be in very general agreement that prophylactic treatment by an anti-microbial agent should be carried on for many many years. For a number of years the anti-microbial agent commonly used was sulfadiazine, and the results gotten in the prevention of rheumatic fever were very good indeed. Nevertheless, the widespread use of sulfonamides for the prevention of recurrence of rheumatic fever never gained complete acceptance, and this is because, I think, doctors always had in the back of their mind the fact that sulfonamides are toxic drugs. When used over long periods of time they may cause, not only rashes, fever and other allergic phenomena, but more particularly leukopenia, and if their use is persisted in they may produce true agranulocytosis. For this reason efforts have been made to prevent recurrence of rheumatic fever by antibiotics which do not have these toxic effects. There have been a number of studies made with the use of penicillin by mouth, chiefly the repository form of penicillin, Bicillin. One of the best documented studies of this kind was made by my associate Dr. Milton Markowitz. He reported at the last antibiotic symposium in Washington just a few months ago, a comparison between a comparable number of cases treated with Bicillin, 200,000 units a day, and with sulfadiazine one-half gram a day for the young children and a gram daily for the older children. In general the results with penicillin

were as good if not a trifle better than the results with sulfadiazine. Recurrences under penicillin were exactly the same as recurrences with sulfadiazine, and they were very few. The toxic effects of penicillin were fewer than with sulfadiazine, although there were very few with sulfadiazine too. I think that one can say with complete certainty that the use of 200,000 (although Chicago and Boston groups prefer 400,000) units of penicillin a day over many, many years is advisable, indeed is mandatory in a child on whom the diagnosis of rheumatic fever has been made.

In addition to this, antibiotics have not been used sufficiently in situations about which Dr. Wright talked this morning. I refer to those children who are subject to oft repeated upper respiratory infection, with or without asthma. If they have asthma this is more reason for them to receive prophylactic antibiotics of some kind, rather antimicrobials, if I may use that word, if they do not have asthma, but are children who every week or ten days or two weeks get a severe upper respiratory infection, with fever and cough, many with bronchitis, some with pneumonia, some with otitis, and they are missing half of their school time, it is perfectly legitimate, and very wise to treat these children with prophylactic doses of one of the anti-microbial agents. I say anti-microbial because sulfadiazine is just about as good in the prevention of upper respiratory infection of this nature as are the broad spectrum antibiotics and penicillin. Perhaps the broad spectrum antibiotics are a wee bit better although I haven't enough controls in my own practice to be perfectly sure of that. I wouldn't hesitate to use one or the other. In cystic fibrosis it is essential for the child's survival that he be kept on good-sized prophylactic dosage of a broad spectrum antibiotic. Whether it's necessary to change from one to another because of the fear of the development sensitivity or because of possible development of resistant strains in the respiratory tract is a matter which I have not thoroughly satisfied myself about. I can only say that my oldest cystic fibrosis, now nine years old, was diagnosed at three months of age. He hasn't a thing in his lungs, he has never had any

respiratory trouble, and he has never been on anything except aureomycin. Bronchiectasis, leukemia and nephrosis should all be handled the same way. Any child who is under protracted cortisone therapy must be given equally protracted antibiotic prophylaxis.

*Dr. Walton:* Dr. Schaffer, I wonder if you would like to add something to that with regard to pediatrics and possibly bring up another point which we discussed—the matter of prophylaxis of neonatal pneumonia.

*Dr. Schaffer:* With respect to the long term treatment of rheumatic fever, I want to stress a point which I failed to make in the previous discussion. This is that contrary to our original impression, one is not permitted to stop antibiotic therapy during the summer months because there are too many recurrences of rheumatic fever in the temperate zone in which we live during the summer as well as during the winter. Prophylaxis of rheumatic fever probably should be kept up until the child has passed adolescence. Prophylaxis of the upper respiratory infection such as Dr. Wright mentioned this morning, with or without asthma, can be carried out for one winter and then one can see what the next fall brings forth. If the child again begins to have repeated upper respiratory infection with or without the lower respiratory components, then one had better decide to repeat it for another winter, and the following fall the same. Usually, it seems to me I've never had to do it more than two winters. Dr. Wright, will you comment on that.

*Dr. Wright:* I agree completely with everything you have said.

*Dr. Schaffer:* That is very unusual and gratifying.

For the past few years I have been very interested in the question of neonatal pneumonia, especially that pneumonia which has been acquired in utero, intra-uterine or congenital pneumonia. In all the tables of mortality published since about 1940, pneumonia accounts for from 5% to 10% of all neonatal deaths. In addition to this, pneumonia is the cause of death of many fetuses in utero, the only pathological finding in a still-birth not uncommonly being intra-uterine

pneumonia. It seems to me that this is a field that we have not attacked with our usual gusto and that we are allowing a great many salvageable babies to die. How many, I am not yet quite sure, but I am perfectly sure that we can find out. In the first place, most of the babies who die of intra-uterine pneumonia, not all to be sure, but roughly half, have acquired this pneumonia because the membranes have ruptured too soon. I think that a six hour membrane rupture time is about normal and that anything over six hours must be called prolonged. There are those who will not agree with me and who contend that 12 hours or even 24 hours is not abnormal. I will stick to my guns without going into detail that six hours is the upper limit of normal. The longer the membranes have been ruptured the more likely is contamination to be present. Since the fetus makes respiratory movements in utero, and I say this as a fact and think I can substantiate it, he breathes contaminated amniotic fluid into his lungs and the result may be a dead baby or one born with intra-uterine pneumonia who dies within a few days. The only point I want to make is that in this condition the obstetrician must begin treatment of the mother before the baby is born. Any mother who ruptures her membranes more than six hours before the obstetrician sees her, should be given the benefit of heavy antibiotic treatment. In addition, the pediatrician who acquires such a baby is under the necessity of beginning treatment with a broad spectrum antibiotic, not penicillin alone, or penicillin and streptomycin, but with a broad spectrum antibiotic immediately after the baby is born.

*Dr. Walton:* Thank you Dr. Schaffer. Dr. Sandusky will now please summarize a general review of the use of antibiotics in surgery.

*Dr. Sandusky:* It is a truism to say that the anti-microbial agents have had a profound effect of the practice of surgery. An outstanding example is the marked reduction in surgical infections since the introduction of these drugs. Dr. Walton has asked me to present a panorama of the use of anti-microbial agents in surgery and I have chosen to do this by showing several lantern slides which illustrate

in outline form the scope of the problem. The outline includes some abuses as well as the uses of these very valuable agents and, in addition, points out some of the difficulties that we encounter when employing them in surgery.

One can divide the surgical usage of these agents into the prophylactic and therapeutic categories. The first table (lantern slide) illustrates some of the prophylactic purposes which are served by the anti-microbial agents:

1. Contaminated accidental wounds.
2. Operative wounds in or near established infection.
3. Emergency operations in presence of unrelated infections.
4. Preparation for intestinal operations.
5. Patients with indwelling catheters.
6. Operations or injuries of oral and related cavities.
7. Operations on deranged urinary tract.
8. Operations on patients with pre-existing valvular heart disease.

As we go along, I will make brief comments about various items on this list. The first of these is the use of the agents in the contaminated accidental wounds. When one is sure that debridement has been thorough and has been accomplished soon after the injury has taken place, there does not seem to me to be any valid indication for routine employment of anti-microbial agents. Their use should be reserved for those cases in which debridement has been delayed or has been inadequate. When one is operating in areas of or near established infection, unquestionably the use of these agents diminishes complications which are due to microorganisms and these agents should be employed regularly. The same is true when one has to perform an emergency operation in the presence of unrelated infections; for example, an appendectomy in a child who has acute tonsillitis. There is no question but that these agents should be used in those cases. One of the most important advances in operative surgery has been the preparation of patients for intestinal tract operations. The antibacterial drugs have contributed immeasurably, but one must not forget that they should always be used in

conjunction with adequate mechanical cleansing of the intestinal tract. A number of agents have been employed; it would require a good deal of time to discuss each one of them. We use neomycin and bacitracin and feel that this is a very effective combination. Neomycin is extraordinarily effective against the coliform organisms, but it is not particularly effective against the staphylococci nor the clostridia and for that reason bacitracin is combined with it. It goes without saying that patients who have indwelling catheters require prophylaxis, as do those who have been subjected to operation or who have received injuries in oral or related cavities. Patients who are operated upon in the presence of obstruction or abnormalities of the urinary tract obviously need antibacterial agents. Those who have pre-existing valvular heart disease and who require operation, for example, a dental extraction, should receive drugs preoperatively. It would seem that very few are excluded from the prophylactic use of these drugs, but there are many surgical procedures performed electively under aseptic conditions. These do not require drug prophylaxis. It is an over-use, in other words, an abuse of these agents to employ them routinely in all patients who face surgical operations.

The next consideration is the therapeutic use of these agents. Basically, there are two classes of patients. One includes those in whom the principal reliance is on drug therapy for the control of the infection. The surgical procedure is secondary and if it is done at all it is directed at the residual elements of the infection. In the other class, the operation is primary; drugs are merely helpful adjuncts.

The following table breaks down these two categories a little more specifically.

- I. Unlocalized early infection (circulation intact)
  1. Not closed space (no pressure)
    - (a) Cellulitis
    - (b) Lymphangitis and lymphadenitis
    - (c) Serous cavity infection
  2. Closed space (pressure)
    - (a) Tendon sheath infection
    - (b) Fascial space infection

- (c) Bone marrow infection
- (d) Hollow viscera infection

## II. Localized early infection (circulation intact or diminished)

- (a) Abscess

## III. Late infection (circulation diminished)

- (a) Cavities, ulcers, sinuses or fistulae with dense avascular barriers.

When the infection is not in a closed space, when there is no pressure, the infection responds particularly well to the use of drug alone. Cellulitis, lymphangitis, serous cavity infection are examples of this classification. On the other hand, when the infection is in a closed space, and when pressure is either present or threatened, drugs alone must never be employed. One occasionally sees the consequences of delaying surgical intervention in such patients as these. Examples of these infections are tendon sheath, fascial space, bone marrow, and hollow viscera infections. It goes without saying that abscess requires operation as a primary mode of treatment. In infections in which the circulation is diminished or in which there are dense fibrous walls as in cavities or ulcers, operation must be combined with drug therapy.

The following table shows some of the abuses of anti-microbial therapy in surgery:

1. Indiscriminate and empirical use.
2. Ineffective dosage.
3. Improper route of administration.
4. Inadequate laboratory control.

The final slide presents some of the problems which we encounter when using anti-microbial therapy in surgery.

1. Sensitivity and toxic reactions in patient.
2. Resistant organisms.
3. Superinfection.
4. Lowers standards of aseptic technic.
5. Masking of clinical signs and symptoms.

I would like particularly to call your attention to the fact that blind reliance on drug therapy sometimes causes us to be careless in the standards of our aseptic technic and we sometimes lean more heavily on the drugs than on some of the time-honored aseptic principles. One occasionally sees examples of the masking of clinical signs and symptoms due to the use

of these drugs. The harmful effects of such masking is illustrated in connection with possible infection in the peritoneal cavity. In such instances the use of antibacterial agents prior to accurate diagnosis is quite similar to the employment of morphine in the patient who has possible intra-abdominal disease prior to the time when he can be completely evaluated.

*Question:* I should like to ask Dr. Sandusky if he thinks appendicitis can be cured with antibiotics.

*Dr. Sandusky:* I can answer that very shortly by saying no. However, once the disease escapes the appendix and becomes peritonitis or intra-abdominal abscess, the antibacterial drugs have a very definite place; if I had the time and the figures before me I could show you a marked drop in the mortality rate in our own hospital. Dr. John Hawk, now of Charleston, analyzed our cases a few years ago and showed a very decided reduction in mortality in peritoneal contamination after the introduction of penicillin and streptomycin.

*Question:* I have a great many patients who have dental extractions. These extractions seem to hurt a great many of our people more than appendectomy. What is the panel's reaction to some prophylactic drug before dental extractions.

*Dr. Sandusky:* If the extraction takes place in a mouth which is the site of oral sepsis, some form of prophylaxis is indicated. If the patient has, for example, valvular heart disease or some cardiac defect, I think that prophylactic therapy is definitely indicated, but it would seem superfluous to give every patient who is having dental extractions routine drugs.

*Dr. Walton:* Thank you Dr. Sandusky. The floor will now be open for a period of questions and answers.

*Question:* I should like to hear a discussion on the synergistic effects of antibiotics and the antagonistic effects.

*Dr. Parker:* I think the concern over synergism and antagonism between antibiotic combinations has been overemphasized. Jawetz, in California, performed the initial studies on this problem. Using experimentally infected mice treated with combinations of various antibiotics, he outlined synergistic and antagonistic

combinations. Speaking from the clinical standpoint, there is little evidence to substantiate the fact that antagonism exists between antibiotics given in combination. There is, to my knowledge, only one clinical study which in any way points toward antagonism. Dowling and collaborators treated two groups of patients who had pneumococcal meningitis. One group received penicillin alone, one million units every two hours, and the second group received the same dosage of penicillin and, in addition, large doses of chlortetracycline. The group who received both drugs had a mortality rate approximately three times that of the group who received penicillin alone. For all intents and purposes, the severity of illness was the same in both groups. Kirby attempted to confirm this work by a similarly controlled study of pneumococcal pneumonia and could find no difference between the group who received penicillin alone and the group who received penicillin and chlortetracycline.

Likewise, there are few instances in which combinations of antibiotics have been demonstrated to have a definite synergistic effect. There is no question about the efficacy of combining streptomycin with penicillin in the treatment of enterococcal infections such as subacute bacterial endocarditis. Here, the organism is resistant to both antibiotics. Yet, when a combination is given, a bactericidal effect can be demonstrated, and the mortality rate is definitely lower. Some hemolytic staphylococcal infections constitute another clearcut indication for combinations of antibiotics. Infections with certain strains of these microorganisms are only controlled by the use of penicillin, streptomycin and the newer broad-spectrum antibiotics in combination.

Aside from these examples, I don't know of any clinical evidence which substantiates the belief that these drugs should not be given in combination, or which implies that certain combinations of them are synergistic.

*Dr. Walton:* By synergism, Dr. Parker, you mean the results are greater than would be anticipated from the simple addition of the effects of the two drugs. In other words, you are speaking of potentiated effects rather than simply additive effects.

*Dr. Parker:* I'm referring to a true synergistic effect. Not an additive effect.

*Question:* I would like to hear a little discussion on the duration of therapy with these antibiotics in some of the conditions such as pneumonia and streptococcic sore throat.

*Dr. Parker:* In pneumonia, it has been our policy to administer antibiotics until the patient has been afebrile for two days.

In some rickettsial diseases, such as Rocky Mountain spotted fever, one does not have to administer the drug for even that long a period of time. Probably, specific therapy can be stopped once the patient becomes afebrile since, in the majority of cases, a relapse will not occur. In streptococcal sore throat, antibiotic therapy should be continued for ten days. However, I think, as a general rule, for most infectious diseases antibiotic therapy should be continued for approximately two days after the patient becomes afebrile.

*Question:* A report came from California within the last six months of arrest or putting people in a state of quiescence in ulcerative colitis with isoniazid. Have any of you on the panel or in the audience had any experience with this?

*Answer:* No.

*Question:* I would like to ask Dr. Parker about his ideas on the prophylaxis of rheumatic fever.

*Dr. Parker:* I think the use of antibiotic therapy for prophylaxis against rheumatic fever is now well established. I do not know what the duration of such prophylactic treatment should be. As you know, the American Heart Association recommends that it be continued indefinitely, for life, if necessary. For the present, I believe this suggestion is reasonable, although we may have to revise it later on.



*From Vesalius*

# AGRANULOCYTOSIS DUE TO CHLORPROMAZINE

## REPORT OF A CASE WITH RECOVERY

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and

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Chlorpromazine (Thorazine), a new chemical compound [10-(3-dimethylamino-propyl)-2-chlorphenothiazine hydrochloride] became available for medical use in this country in May 1954. Since that time, it has found widespread acceptance. It has proven useful in many different clinical situations, being particularly of value in aiding in the control of nausea and vomiting regardless of the cause; as a "tranquilizing" agent in psychiatric patients and in reducing the narcotic requirements of patients with malignant lesions. Because of its chemical structure, it is not surprising that hematological complications should occur. Due to the nature of many of the conditions for which Thorazine is most applicable, long-term administration is frequently necessary. These two facts make it mandatory that one be aware of the possible complications that may result from therapy. The case reported is illustrative of one of these possible complications.

*Case Report:* E.O.R., a 55-year-old white female was first admitted to the Chester County Hospital January 25, 1955. At the time of her admission, she was complaining of fever and pain in the perineal region.

The patient had been in good health and had never been seriously ill until September 1954. At that time, she consulted a local physician because of the complaint of nervousness and palpitation. The patient's heart was found to be moderately enlarged, and was fibrillating. She was treated with quinidine, which caused a reversion to normal sinus rhythm.

There remained, however, premature auricular contractions and the patient continued to complain of nervousness. Accordingly, in the latter part of November 1954, the patient was given Thorazine, 25 mgm. three times a day, which medication she continued to take until she was admitted to the hospital January 25, 1955. The only other medication that the patient had taken was quinidine, 3 grains, three times

a day, which was necessary to maintain the normal sinus rhythm. The patient got along very well until January 22, 1955, when she consulted one of us (HMS) because of fever and general malaise. The temperature was found to be 101 degrees and the patient appeared moderately ill but without any localizing signs. It was felt that the patient probably had influenza. She was given penicillin and erythromycin but due to lack of response, she was admitted to the hospital January 25, 1955.

A complete blood count had been done the 6th of October 1954, and had been normal in all respects.

The past history, review of systems, and family history were not contributory to the present illness.

On admission to the hospital, the patient's temperature was 103°, pulse 120, respirations 22. The patient was a well-developed and well-nourished white female, who appeared acutely ill. The blood pressure was 152/90. The heart was moderately enlarged to the left, the left border lying one to two cm. outside the mid-clavicular line. The sounds were clear and of good quality, the rhythm was basically regular with frequent premature contractions. The lungs were clear. The liver was not enlarged, and there was no distention of the cervical veins. In the right labium majus was felt an area of induration with redness which measured some five cm. in diameter. This was exquisitely tender. Pelvic and rectal examinations were normal. The remainder of a complete physical examination revealed no other abnormalities.

An electrocardiogram, taken the day of admission, revealed a normal sinus rhythm with frequent premature auricular contractions. A roentgenogram of the chest, likewise taken on the day of admission, revealed mild cardiac enlargement and minimal pulmonary congestion. The aortic arch was calcified.

A urinalysis was negative with the exception of a trace of albumin. Three blood cultures subsequently were found to be negative. The results of the various blood counts are given in Table Number One.

On admission, the Thorazine was discontinued; quinidine, 3 grains, was given 3 times a day; and the patient was begun on tetracycline, 500 mgm. intramuscular every 8 hours. On January 26, the patient was given one pint of blood and begun on cortisone, 100 mgm. every 12 hours intramuscularly. The pa-

TABLE I

DATE	HB (Gms.)	WBC	PMN	BASO	EOSIN	LYMPH	MONO	NUCLEATED RBC's
1/25/55	78	1,000	1%	2%	0	96%	1%	0
1/26/55*	--	1,100	0	1%	0	97%	2%	0
1/27/55*	78	1,100	0	1%	0	97%	2%	0
1/28/55*	85	1,000	0	0	0	97%	3%	0
1/29/55	95	900	0	1%	0	96%	3%	0
1/30/55	98	1,200	2%	0	0	94%	4%	0
1/31/55	104	4,300	47%	1%	0	50%	2%	6/100 WBC's
2/ 1/55	107	7,950	59%	0	1%	36%	4%	"few"
2/ 2/55	100	13,850	68%	0	0	31%	1%	"few"
2/ 3/55	95	19,700	71%	0	0	28%	1%	0
2/14/55	--	8,550	71%	0	0	29%	0	0
2/22/55	--	4,600	55%	2%	9%	33%	1%	0

(\* — Blood Transfusion Given)

tient subsequently received one pint of blood on the 27th and 28th of January. On January 29, the patient's cardiac status had deteriorated somewhat; there were now present moist rales in the bases of both lungs, and the heart rhythm was more rapid and irregular. Accordingly, the patient was given digitoxin, receiving a digitalizing dose over the next 3 days. That same day, a sternal marrow examination performed by one of us (CRH) revealed typical maturation arrest of the myelocytic series. Photomicrographs of the bone marrow and the differential count are given in the illustration below and in Table Number Two. On this same

on January 29, remained subnormal for the next 48 hours, and then remained normal for the remainder of her hospital stay.

TABLE II

## Bone Marrow Examination 29th January 1955

Myeloblasts	0
Myelocytes	61
Juvenile	0
Polymorphonuclear	0.5
Eosinophil	0
Basophil	0
Lymphoblast	0
Large lymphocyte	1
Small lymphocyte	5
Erythroblast	1
Normoblast	30.5
Plasma cell	0.5
Megakaryocyte	0.5
M/E ratio:	2.10

All figures in percentage.

day, treatment was begun with penicillin, 800,000 units every 12 hours and 0.5 gram of streptomycin every 12 hours. She was likewise given ACTH, receiving 20 units in 1,000 ml. of 5% glucose in distilled water. The cortisone dosage was decreased to 50 mgm. twice a day. This dose of ACTH was continued through February 7, 1955, when it was discontinued. The cortisone dosage was decreased, beginning February 3, and finally completely discontinued February 10. The patient's temperature fell to normal

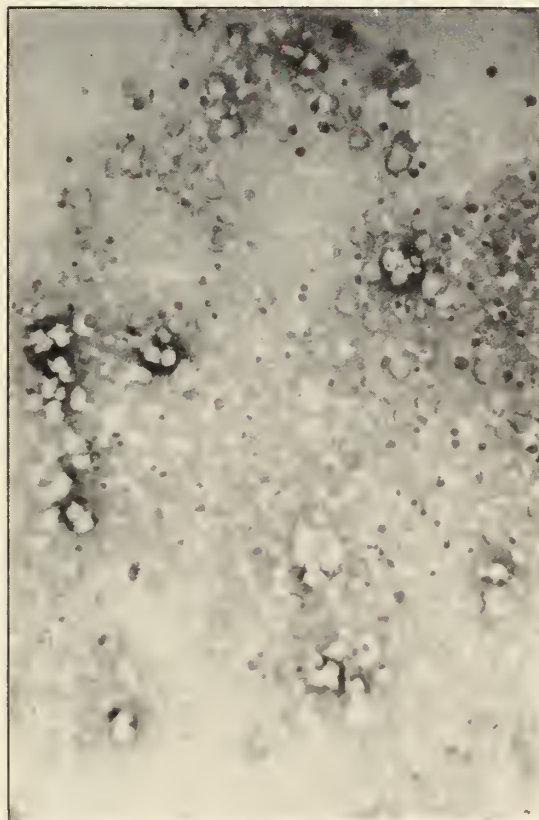


Fig. 1—Magnification

Objective . . . 10x  
 Eye Piece . . . 10x  
 Tube Length . . . 160mm  
 Projection Distance . . . 250mm (10 in.)  
 10x10=100x1 equals 100x Magnification

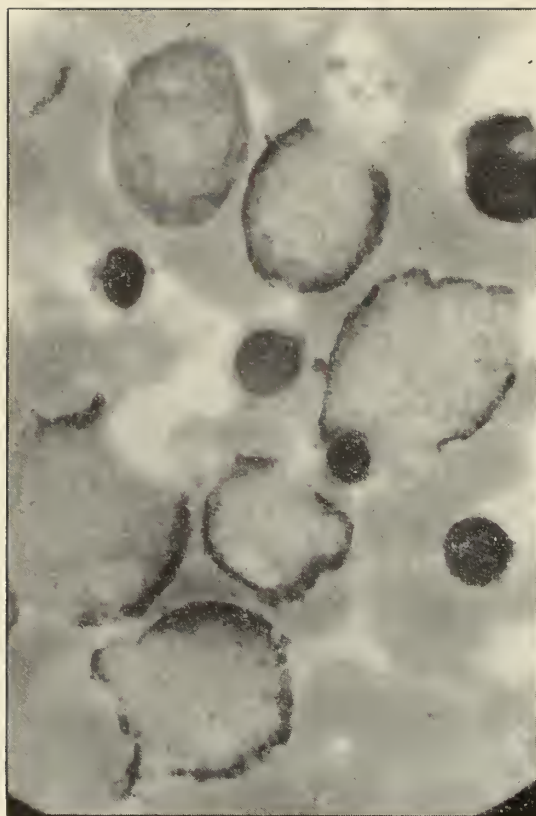


Fig. 2—Magnification

Objective . . . 97x  
 Eye Piece . . . 10x  
 Tube Length . . . 160mm  
 Projection Distance . . . 250mm (10 in.)  
 10x97x1 equals 970x Magnification

*View showing myelocytes and normal RBC precursors and platelets (X1940).*

The area of cellulitis in the right labium enlarged during the first two or three days of hospitalization, then remained stationary without any evidence of fluctuation or suppuration, and finally sloughed cleanly February 2, 1955. The area granulated well, and healing was satisfactory at the time of the patient's discharge.

Since discharge, the patient has continued on digitalis and has taken quinidine intermittently. Her blood count has been checked at frequent intervals and has been found to remain normal.

#### COMMENT

It is, of course, not possible to state categorically that this patient's agranulocytosis was due to Thorazine. However, the typical bone marrow appearance of "maturation arrest" of the myelocytic series, the reappearance of polymorphs 8 days after dis-

continuance of Thorazine and her complete recovery fairly well preclude any other interpretation.

Agranulocytosis has been reported as occurring as a result of quinidine administration,<sup>1</sup> but this drug was continued during the height of the patient's illness without any deleterious effect. The patient has since continued to receive it intermittently, and her blood count has remained normal.

Three previous cases have been reported in which agranulocytosis is thought to have occurred as a result of Thorazine administration. In the first case,<sup>2</sup> the patient received 50 mgm. of Thorazine 3 times a day for a total of 6 gm., at which time agranulocytosis was diagnosed. No bone marrow examination is reported. The patient was treated with penicillin and cortisone and made an uneventful recovery. The second case,<sup>3</sup> occurred in a patient who was given Thorazine in increasing dosage for 3 months, the final dosage being 80 mgm. 4 times a day. The patient was also receiving phenobarbital and had taken two Ex-Lax tablets two days before the symptoms of agranulocytosis developed. A bone marrow examination was reported as revealing "a totally acellular, aplastic bone marrow". The patient received antibiotics only. Her course was complicated also by the presence of heart disease, and the patient is stated to have died in pulmonary edema without, however, any reappearance of polymorphs in her peripheral blood. A blood culture was reported as "heavily laden with pseudomonas aeruginosa". The third case,<sup>4</sup> occurred in a patient in whom there was strong question as to the presence of lymphatic leukemia. The patient received Thorazine, 25 mgm. twice daily from August 11, 1954 to September 1, 1954, and became ill on September 10, 1954. This patient also had jaundice. In spite of intensive therapy, including ACTH and antibiotics, the patient developed acute pulmonary edema and died with peripheral cardiovascular collapse. At autopsy, the bone marrow was stated to be "hypocellular and showed no evidence of leukemia. Maturation of the granulocytic series was not evident beyond the myelocyte stage".

Two other significant complications of therapy with Thorazine have been reported. The first of these is jaundice<sup>5</sup> which has all the laboratory features of the obstructive type of jaundice, and the second is the recent report<sup>6</sup> of two cases of contact dermatitis.

Considering the widespread use of Thorazine the total number of reported severe side effects to date is quite small. It has been estimated<sup>7</sup> that the incidence of agranulocytosis, if all the reported cases are accepted as being due to Thorazine, is in the neighborhood of one in 166,000 cases. In spite of the apparent rarity of these serious side effects of therapy with Thorazine, the possibility of their occurrence must be borne in mind and suitable precautionary measures of interval blood counts or other indicated laboratory procedures be carried out. This is particularly true in those patients who receive the drug for a prolonged period of time.

#### Summary

A patient who had received Thorazine for three and one-half months developed complete agranulocytosis with evidence of a

maturation arrest of the myelocytic series on bone marrow examination. Exactly 8 days after discontinuance of Thorazine and following the use of antibiotics, ACTH, and cortisone, polymorphonuclear cells reappeared in her peripheral blood, and the patient subsequently made a complete recovery. Though this complication of therapy with Thorazine is apparently quite rare, the possibility of its occurrence should be kept in mind. All patients receiving the drug for prolonged periods of time should have periodic complete blood examination.

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*Dr. Thomas Cooper*



# PYRIDOSTIGMINE (MESTINON) IN MYASTHENIA GRAVIS

## A CASE REPORT

RICHARD S. POLLITZER, M. D.  
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Myasthenia gravis is an illness manifested by weakness of voluntary muscles, especially those of the facial area.<sup>1</sup> This weakness is thought to be due to some disturbance in the physiology of the neuromuscular junction.<sup>2</sup>

Normally in the neuromuscular junction, acetylcholine is liberated at the nerve ending, initiating electrical changes that result in the stimulation of the voluntary muscle fibers (Fig. 1). Acetylcholine is destroyed by chol-

muscle end-plate.

Modern therapy involves the production of a *relative* increase in acetylcholine. This is accomplished by inactivating cholinesterase.<sup>4</sup> (Fig. 2).

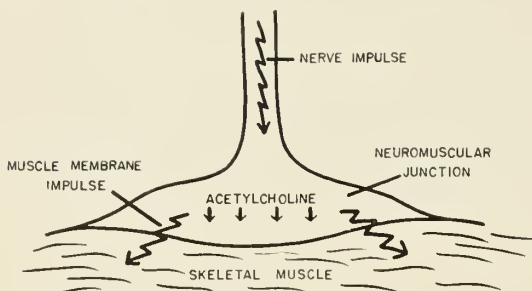


Figure 1-A

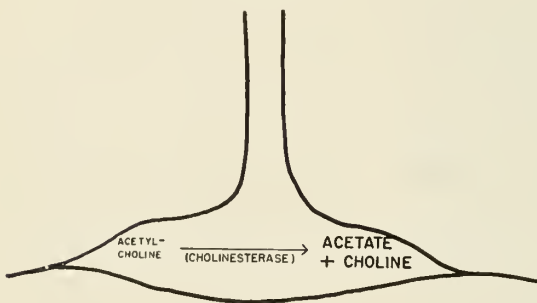


Figure 1-B

inesterase, being hydrolyzed to acetate and choline. Cholinesterase is then converted into an inert material.

In myasthenia gravis there appears to be a disturbance at the neuromuscular junction so that acetylcholine has a decreased effect on the muscles.<sup>3</sup> The *relative* insufficiency of acetylcholine is possibly due to the presence of a chemical substance which, like curare, blocks the access of acetylcholine to the

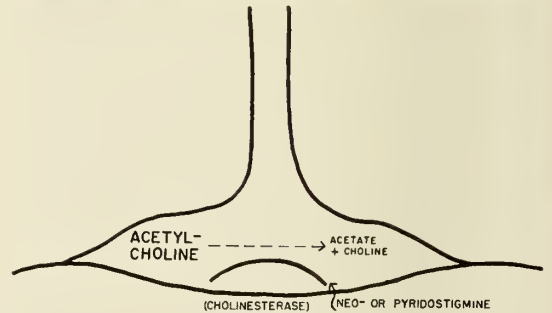


Figure 2

Since 1935 neostigmine (Prostigmin) has been used as an anticholinesterase agent. The inactivation of cholinesterase allows for a greater accumulation of acetylcholine at the muscle end-plate permitting effective neuromuscular transmission and greater muscle strength in myasthenia. Neostigmine also has an anti-curare effect.<sup>5</sup>

Neostigmine has the disadvantage, however, of producing strong parasympathetic stimulation resulting in lacrimation, salivation, nausea, vomiting, abdominal cramps, diarrhea and bradycardia. In the past few months a derivative of neostigmine has become available commercially. This new preparation is known as pyridostigmine (Mestinon), and has received favorable reports from several investigators.<sup>5, 6, 7, 8</sup> Its chief advantages are decreased incidence of gastrointestinal and other parasympathetic side-effects and a somewhat greater duration of action especially at night.<sup>5</sup>

The present case is presented to show that the drug has proven satisfactory for use in a general hospital.

### REPORT OF CASE

F. M., a 28 year old white male, was admitted to

the Spartanburg General Hospital on May 16, 1955, because of weakness of nine years' duration. The diagnosis of myasthenia gravis had been made after the onset of symptoms, at a Veterans' Administration Hospital.

He had been taking Prostigmin for years, but had found it necessary to increase the dose to extremely high levels. At the time of this admission, he was requiring up to 1.5 ml. of Prostigmin 1:1000 (1.5 mg) I.M. every thirty minutes. On this dosage he had developed diarrhea, abdominal cramps, salivation and troublesome pharyngeal over-secretion.

Examination revealed an asthenic-looking, young, white male with dysarthria so severe that his speech was almost unintelligible. The corners of his mouth turned downward, and saliva drooled from them. There was ptosis of both lids. There was marked weakness of all muscles; this was especially well demonstrated in his poor hand grip and inability to walk. Pulse pressure was narrow, the systolic blood pressure being 110, and the diastolic 98.

The patient was given ephedrine, 25 mgm. every eight hours. Transfusions were given. Atropine sulfate 0.3 mgm. was given every 6 hours to decrease his gastrointestinal symptoms.

The Prostigmin dosage was reduced to 1 ml. of 1:2000 (0.5 mgm) I.M. hourly. Mestinon was then started in a dosage of 30 mgm. ( $\frac{1}{2}$  tablet) orally every 6 hours.

Twenty-four hours later, the patient volunteered, "I could run around the hospital several times". Examination revealed increased muscle strength.

The dosage of Mestinon was gradually increased and the Prostigmin dosage was gradually decreased. The diarrhea and other cholinergic side-effects disappeared. Eleven days after the initiation of Mestinon

therapy, the patient was dismissed on Mestinon, 60 mgm. orally four times a day, plus 0.5 ml. Prostigmin 1:1000 (0.5 mg) I.M. four times a day. He was also given small doses of ephedrine, potassium and atropine.

## SUMMARY

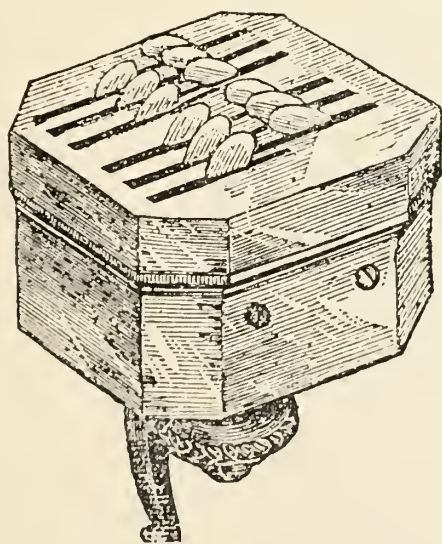
A case of myasthenia gravis is presented and the use of pyridostigmine (Mestinon) described.

## ACKNOWLEDGEMENTS

The author wishes to express his appreciation to Dr. Thomas C. Fleming and Mr. David Dempsey of Hoffman-LaRoche; Dr. W. N. Cochran, Dr. J. W. Blanton, and Dr. David Baxley.

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# POSTPARTUM PITUITARY INFARCTION (SHEEHAN'S SYNDROME)

## REPORT OF THREE CASES

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Anderson, S. C.

In 1914 Simmonds<sup>1</sup> described the case of a woman who at 35 years of age had puerperal sepsis and whose clinical course during the next 11 years was marked by amenorrhea, emaciation, and premature senility. At death pituitary fibrosis was found. By 1918 he<sup>2</sup> added additional cases of proved anterior lobe destruction with symptomatology.

In 1937 and 1939 Sheehan<sup>3</sup> described the relationship of severe postpartum hemorrhage with shock and coma, and anterior lobe infarction with necrosis. In July, 1954, he reported additional cases,<sup>4</sup> and in all the literature could account for 97 cases proved by autopsy and 226 cases of the clinical syndrome without autopsy proof. He added to the symptomatology and pathology.

Although this is a fairly large group of reported cases, nevertheless the disease is relatively rare. During a 10 year period of study and observation of the occurrence of postpartum hemorrhage and shock with hypophyseal necrosis at the Malmo<sup>5</sup> General Hospital (Sweden) there were 30,158 births. Five hundred and ninety-nine of these patients each lost over 1000 ml. of blood at parturition and 548 were retraced and interviewed and in none of these were there any definite signs of Sheehan's syndrome.

According to Sheehan<sup>3</sup> during the latter part of pregnancy the anterior lobe may increase to two or three times its normal size, but it usually returns to normal following parturition. Postpartum hemorrhage severe enough to cause a drop in blood pressure, especially if sustained, may produce a specific arrest<sup>4</sup> in the blood supply of the anterior pituitary lobe which undergoes ischemic necrosis (infarction). In about one-half of the cases 95 to 98 percent of the anterior lobe becomes infarcted, and from a practical standpoint, the completeness of destruction is often

greater than occurs in any of the other pathological processes, even by surgical hypophysectomy in humans. Although necrosis begins at delivery it is difficult to recognize by ordinary histological methods until it is at least 12 hours old. Within a few months the necrotic area heals as a small scar which remains unchanged for years. Symptoms are dependent upon the completeness of the anterior lobe destruction with decrease of the adrenocorticotrophic, thyrotrophic, gonadotrophic, and sometimes the lactogenic hormones and subsequent atrophy of their respective target glands. If secretion of one or two of these hormones is deficient, "selective" or partial hypopituitarism<sup>6</sup> is the result. If all these hormones are deficient the condition is known as "panhypopituitarism". If less than 50 percent<sup>3</sup> of the anterior lobe is destroyed, probably no symptoms result. Slight to moderate symptoms occur when about 75 percent is destroyed, and severe symptoms when 95 percent or more is destroyed.

Symptoms include peripheral vascular collapse attending a full term delivery. Following delivery the breasts do not lactate and rapidly undergo involution. Later atrophy of the breasts may occur, although sometimes the breasts do not become atrophic. As time passes there is atrophy of the genitalia, loss of libido, general loss of hair and failure of regrowth of pubic hair. In most patients there is permanent amenorrhea.

The skin becomes dry, the nails brittle. There is increased sensitivity to cold, increased tendency to infection, weakness, drowsiness, and constipation with episodes of nausea and vomiting. Symptoms may be severe with mental confusion, delirium, deterioration, coma and death all within a few days, or may be milder with gradual deterioration over a period of years, with chronic invalidism. Some

patients may live 20 years or more with well defined hypopituitarism. Others may demonstrate mild symptoms and signs for a while and then gradually recover completely. Sheehan and Murdock<sup>7</sup> claim that after treatment with follicular stimulating hormone one patient ovulated, became pregnant, and was cured after 4 years of illness.

The blood pressure is normal or subnormal, as is the pulse, respiration, and temperature. Most patients present no weight loss, though some are cachectic. Signs of myxedema with dull, apathetic, puffy facies, dry skin, sallow complexion, sparse axillary and pubic hair, thinness of eyebrows, coarse voice, and lethargy are usually present. However, in a few patients the facial appearance is normal, occasionally with smooth, shiny, or soft skin, especially about the face. The breasts may be normal or atrophic. The vaginal mucosa is thin and rugae are absent.

At autopsy the posterior lobe and pars tuberalis are usually normal (blood supply from the inferior hypophyseal artery<sup>10</sup>) but scarcely 10 percent of the anterior lobe may remain in association with necrosis and fibrosis. The adrenal cortex is usually atrophic and very often cannot be found grossly, though the medulla appears normal. The thyroid and gonads are usually atrophic, but the other ductless glands appear normal.

Case 1.—A 34 year old white woman was admitted to the medical service of the Anderson Memorial Hospital, June 24, 1951, because of bleeding of the gums, infection, chilly sensations, and fever following a tooth extraction. She also complained of disproportionate weakness, fatigue, anorexia, and weight loss with occasional episodes of nausea and vomiting of several years duration, in addition to progressive pyorrhea and dental caries.

Past History.—Her first 5 pregnancies were attended at home without complication, though profuse bleeding occurred with delivery of the sixth baby. Her seventh and last baby had been delivered in the hospital 5 years previously, when she was 29 years of age, at which time she lost a considerable amount of blood, and remained in a mild state of shock with much nausea and vomiting for 2 days. Her shock-like state was finally controlled by administration of 500 ml. of blood, parenteral fluid, and other supportive measures. She could remember no details for a week following delivery, when she recalls rather severe bilateral headache which gradually subsided

after a few days, with an occasional similar headache since. Her anemia had been severe and apparently could not be corrected, although her menses had not returned. Although her usual weight had been between 110 and 116 pounds, she had since weighed less than 100 pounds. She did not lactate from either breast after delivery whereas lactation had occurred to a normal degree in association with previous pregnancies.

There had been gradual loss of axillary hair, and pubic hair had never regrown. Her voice had become weak and husky. She had had frequent upper respiratory infections, and progressive pyorrhea with some loss of teeth. She was especially sensitive to cold weather. Constipation had become severe, associated with recurrent episodes of gripping abdominal pain and some abdominal swelling.

The significant physical findings, the course and treatment are listed in table 1. The significant laboratory findings are listed in table 2.

Case 2.—A 37 year old white woman was seen for the first time December 3, 1954, with complaints of anemia, hay fever, exhaustion, and amenorrhea. From the onset of menses at 13, her periods had occurred irregularly every 28 days to 3 months. When she was 21 she became pregnant with her first child, which was delivered at home approximately 9 months thereafter. Following delivery she lost much blood and went into shock and coma for several hours, but recovered without fluid or blood. She remained disproportionately weak and anemic. During the following 5 years menstruation became even more scanty and more irregular, recurring approximately every 3 to 4 months. Because of amenorrhea she sought medical attention and on one occasion was given a series of injections of estrogen in oil and following this, menstruated well for one period. Immediately thereafter her second pregnancy occurred and 9 months later she had a normal child. This was 11 years ago and she has not menstruated since. Axillary and pubic hair have been very scanty. Disproportionate fatigue with exhaustion had gradually become worse, especially during the several months prior to being seen the first time.

Review of Systems.—Revealed weakness, dry skin, slightly painful stiffness of lower part of the cervical spine; one to three upper respiratory infections each year.

(See table 1 for physical findings, treatment, and course and see table 2 for laboratory findings.)

Case 3.—A 36 year old white woman was admitted in labor and preeclampsia to the obstetrical service of the Anderson Memorial Hospital, September 27, 1954, with a blood pressure of 190/100 and two plus albumen. Soon after admission she was delivered of twins, the product of her ninth pregnancy. The estimated blood loss at delivery was 350 ml. but she continued to bleed during the next several hours, when 15 hours after delivery she was observed to be

in a shock-like state with a blood pressure of 70/40 and a hemoglobin of 8.5 grams. She was given 1500 ml. of whole blood and from the second day through the ninth postpartum day ran fever of 102 to 103 degrees from septic endometritis.

Upon returning home she remained in bed for the next 2½ months because she was simply too tired and weak to get up. Water and food intake had become progressively diminished and nausea, vomiting, lethargy, and deterioration increased during the 4 or 5 days prior to admission. Waxy pallor, weight loss, and increased dryness of the skin had been progressive.

(See table 1 for physical findings, treatment, and course and see table 2 for laboratory findings)

Treatment consists primarily in replacement of the diminished hormones. There is no potent polyvalent pituitary preparation available. ACTH may be used early in the course of the disease in an attempt to restimulate the adrenal cortices. Some patients<sup>11</sup> have responded

well and have been maintained on ACTH.

Most patients will require cortisone or hydrocortisone orally, with maintenance dosages of cortisone from 25 to 50 mgs. each day. However, 1 mg. of 9-alpha-fluorohydrocortisone by mouth is equivalent to 15 to 25 mgs. of oral cortisone.<sup>12</sup> Patients with severe Addison's disease have been maintained on as little as .25 mgs. of fluorohydrocortisone in a single daily oral dose, but the average patient with adrenal cortical insufficiency will probably require 1 to 2 mgs. in a single oral dose. This mineral retaining corticoid should be supplemented with approximately 2.5 mgs. of cortisone if maximum achievement of a sense of well being and better correction of blood glucose and uric acid excretion levels are to be accomplished. Liquorice extract<sup>13</sup> (or glycyrrhetic acid) apparently potentiates

TABLE 1—SIGNIFICANT PHYSICAL FINDINGS

	Case #1	Case #2	Case #3		
	First Visit	First Visit	First Visit	Additional Observation	
Date	6-24-51 — 8-4-51	12-3-54	9-27-54 — 12-23-54	6-13-55	8-3-55 - 8-24-55
General Appearance	chronically ill	mildly chronically ill	chronically ill weak, lethargic	improved	unchanged
Habitus	gracile poorly developed	average — well developed	average — well developed	unchanged	unchanged
BP Maximum Minimum	110/70 90/60	110/70	106/70 80/60	*178/112	118/96 110/60
Pulse	110 regular	88	136	84	80
Skin	pale, sallow, dry, loose	pale, dry, coarse	dry, coarse, sallow	unchanged	unchanged
Hair	no axillary sparse pubic	no axillary scanty pubic	axillary and pubic sparse	unchanged	unchanged
Pelvic	atrophy of external genitalia, vaginal mucosa and uterus	atrophic thin vaginal mucosa, small cervix and uterus	vaginal mucosa thin, atrophic without rugae	unchanged	unchanged
Wgt. Initial Recent	6/24/51—90 lbs. 8/4/55—91¾ lbs.	12/3/54—133 lbs. 9/8/55—143 lbs.	9/27/54—114 lbs.	116 lbs.	118 lbs.

TREATMENT, RESPONSE, AND COURSE SINCE INITIAL OBSERVATIONS

CASE 1—Bleeding swollen left lower gum. Responded to parenteral injections and later maintained on subcutaneous implantations of desoxycorticosterone and testosterone, and desiccated thyroid. Recently maintained on ACTH gel 80 u. each 3rd day, Gynetone repetabs, .04 mgs. (.04 mgs. ethinyl estradiol & 10 mgs. methyltestosterone U.S.P.) & desiccated thyroid. Seven additional hospital admissions because of infections or adrenal crisis.

CASE 2—Responded well and is maintained on hydrocortisone, 20 mgs. each 12 hrs. desiccated thyroid, grains 1½ each day, and gynetone repetabs, .04 mgs. each day. Two hospitalizations since initial observation due to infections associated

with adrenal crises.

CASE 3—Responded well and is maintained on hydrocortisone, 10 mgs. each 12 hrs; desiccated thyroid grains 1½ each day; and Gynetone repetabs, .04 mgs. each day.

6/13/55—\*Several daily observations. Had omitted medication for 5 mos. Regitine test for pheochromocytoma (5 mgs. I. V.) produced drop in blood pressure from 178/112 to 100/80 within 60 seconds, & with gradual return to 156/112 within 10 minutes.

8/3/55—Histamine base .04 mgs. I. V. without hypertensive response. Bilateral adrenal exploration failed to demonstrate pheochromocytoma but showed the adrenals to be about ½ average size.

TABLE II—LABORATORY STUDIES

Gland	Test	Findings in Pituitary insufficiency	Case #1	Case #2	Case #3
Pituitary	Roentgenogram sella turcica	normal	normal	normal	normal
Thyroid	Basal metabolic rate	low	minus 29%	minus 26%	minus 40%
	Serum cholesterol	normal or elevated	180 mgs. %		269 mgs. %
Adrenal Cortex	Robinson-Power-Kepler water test	"A" below 25; night spec. greater than 1 hr. day	"A" 2.9; night 450 ml. largest 1 hr. day 90 ml.	night 255 ml. largest 1 hr. day 73 ml.	"A" 8.6; night 265 ml. largest 1 hr. day 54 ml.
	Serum chloride Thorn test with ACTH (IM)	normal to low decrease in eosinophils 50% or more	93.3 m. eq/1 no response Fasting 154 4 hrs. 231	92.9 m. eq/1 no response fasting 177 4 hrs. 200	120.1 m. eq/1 no response fasting 333 4 hrs. 322
Ovaries	Vaginal smear	loss of estrogen effect	loss of estrogen effect	loss of estrogen effect	loss of estrogen effect
General	Fasting blood sugar	low	58 mgs. %	82 mgs. %	110 mgs. %
	Oral glucose tolerance test	flat curve	normal		3.8 units insulin IV dropped
	Insulin tolerance test	hypoglycemic unresponsiveness			blood sugar from 110 to 60 mgs. in 30 mins.
	Hemoglobin and R. B. C. W. B. C. and differential	hypo, normo, or hyperchromic anemia normal or diminished WBC; relative lymphocytosis	hgb. 11.0 grams RBC 3.5 mill 7100; 60% segs. 40% lym.	9.8 grams RBC 3.0 mill 5200; 58% segs. 1% eos; 41% lym.	9.0 grams RBC 3.15 mill 5400; 60% segs; 3% eos; 37% lym.

the action of cortisone in some patients with Addison's disease, or Simmond's syndrome. If infection occurs, cortisone or hydrocortisone along with desoxycorticosterone and wide spectrum antibiotics should be employed.<sup>14</sup> Coma from acute adrenal crisis should be treated immediately with intravenous adrenal cortical extract or hydrocortisone.

If adequate cortical replacement therapy is being maintained, desiccated thyroid may be begun in dosage of one-half grain daily with gradual increase to one or one and one-half grains each day during the subsequent 2 to 3 weeks. There is great danger in precipitating adrenal crisis in patients with pituitary insufficiency if thyroid is administered without adequate cortical replacement.

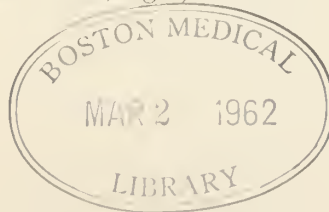
The administration of testosterone, 25 mgs. intramuscularly each other day, greatly adds to the patient's strength, weight, sense of well being, ambition, and libido. Seventy-five milligram testosterone pellets may be implanted subcutaneously and the effect will last for 3 to 6 months. In women below the age of 45 an estrogen with testosterone is probably the

better combination.<sup>6</sup>

#### Differential Diagnosis

Postpartum pituitary necrosis must be differentiated from other disease processes capable of producing pituitary insufficiency. Among the most common are basilar meningitis, cavernous sinus thrombosis, traumatic injuries to the skull or brain, malignant hypertension, cerebral arteriosclerosis, hyperplasia of the chromophobe cells with the formation of chromophobe adenoma, and craniopharyngioma (Rathke's pouch tumor) and parasellar cysts.<sup>8</sup> Usually these may be excluded by the absence of history of severe postpartum hemorrhage, shock, or suspected because of a gradual or insidious onset frequently associated with headache, visual disturbances, and other symptoms and signs of pituitary space occupying lesions, and by x-ray evidence of erosion of the sella turcica.

However, anorexia nervosa remains the most difficult syndrome to be differentiated. Patients with starvation syndromes, including anorexia nervosa, may present all of the symptoms, signs, and laboratory findings of severe



pituitary insufficiency.<sup>15</sup> These patients are usually unmarried and there is no history of postpartum hemorrhage. There is frequently a history of psychosomatic rebellion. Most important is cachexia, not frequently observed in Sheehan's disease. There is usually no significant loss of pubic or axillary hair and frequently there is a fine lanugo, not observed in Sheehan's syndrome. These patients may respond to forced feeding and psychotherapy, but seldom respond to hormones.

#### Summary and Conclusion

Pituitary infarction with subsequent anterior lobe insufficiency may occur in association with postpartum hemorrhage. The syndrome probably occurs more frequently than is commonly realized. The diagnosis can usually be made from the history and physical findings, and confirmed by tests usually available in the average hospital laboratory. Three cases are presented.

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# ELECTROCARDIOGRAM OF THE MONTH\*

DALE GROOM, M. D.\*\*

Charleston, S. C.

*Case Record*—A 70 year old lady who had previously been well and active was admitted to the hospital following an unexplained fainting spell. Apparently she had suddenly lost consciousness but recovered promptly without being observed. Her only other complaints were of dyspnea, mostly at night, and a “throbbing sensation” at times in the left side of the chest, both symptoms of about two months duration. The patient also acknowledged having experienced several transitory dizzy spells during this period of time. There was no history of chest pain or of previous cardiovascular disability.

On physical examination she was observed to have a blood pressure of 190/100 and an irregular pulse at a rate of about 56 per minute. There was moderate distention of the liver and neck veins with some pitting edema of the lower extremities. Moist rales were heard in both lung bases posteriorly. A blowing systolic murmur was audible in the region of the apex.

Roentgenographic examination of the chest revealed a moderate amount of cardiac enlargement with minimal pulmonary congestion.

The electrocardiogram below was taken shortly after admission at about the time she experienced two more attacks of syncope. In spite of increasingly large doses of Pronestyl and quinidine, she continued to have episodes of loss of consciousness with generalized convulsions, cyanosis, and a slow irregular radial pulse. As these attacks increased in frequency and duration (occurring as often as every few minutes, lasting from 1 to 5 minutes or so) the patient showed effects of cerebral anoxia, became semi-comatose, and expired five days following her admission to the hospital.

## *Electrocardiogram*

The remarkable electrocardiogram below is one of several taken during this patient's hospital admission. There is a complete dissociation of atrial and ventricular activity, the P waves occurring at a regular rate of about 95.

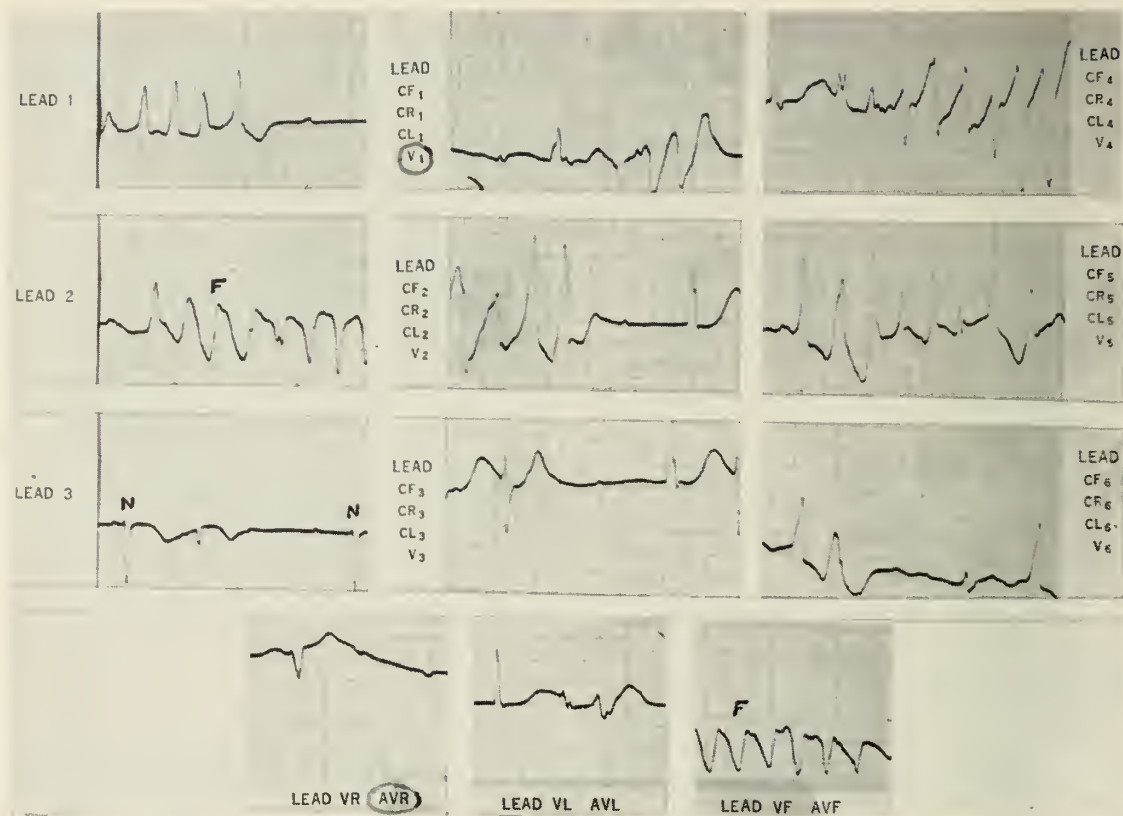
\*One of a series of clinical-electrocardiographic correlations. Purpose of this series is the presentation, not of necessarily rare or unusual ECGs, but of those which illustrate basic electrocardiographic principles or which contribute prominently to the clinical diagnosis.

\*\*Asst. Professor of Medicine, Medical College of S. C. From the Department of Medicine, Medical College of S. C., and the Roper and Medical College Hospitals, Charleston, S. C.

On long strips of tracing the basic ventricular rhythm is seen to be the extremely slow beats, probably arising in the A-V node, labeled “N” in lead 3. Numerous ectopic beats arising from several foci in the ventricles are also evident, and these occur in frequent runs of ventricular tachycardia such as that recorded in lead 1. At times the QRS complexes are completely obliterated by irregular, high, wide deflections of ventricular fibrillation, two paroxysms of which (designated “F”) are clearly discernible in leads 2 and aVf of this record.

## *Discussion*

Ventricular fibrillation is rarely recorded electrocardiographically except as a terminal phase of cardiac activity at the time of death. For many years it was generally believed that the onset of ventricular fibrillation was attended by an almost immediately fatal outcome. Recent clinical experience, and particularly the rather frequent observation of this disorder during cardiac surgery, has proven that this is not necessarily so. There are now quite a number of cases on record in which paroxysms of ventricular fibrillation have reverted to normal ventricular activity either spontaneously or following administration of potassium or the application of various types of electrical de-fibrillators. This patient lived three days after the above ECG was recorded; her history suggests that she may have had recurrent paroxysms for some time prior to admission to the hospital. Included in her several electrocardiograms are manifestations of all stages of hyper-irritability of the ventricular myocardium, from occasional ectopic beats to ventricular tachycardia to ventricular fibrillation. In the chaotic uncoordinated activity of the myocardium during these paroxysms virtually no blood is pumped into the circulation. The net result is the same as in the asystole of complete heart block with cerebral



anemia and syncope (Stokes-Adams syndrome). Presumably, lesser reactions such as dizzy spells may result from more momentary interruption of the circulation.

As a primary cause of death, ventricular fibrillation doubtless occurs more frequently than is recognized. It is known to occur in electrocution, in trauma to the heart, in coronary occlusion, and is said to result sometimes from massive doses of digitalis or quinidine. Ventricular tachycardia and perhaps ventricular fibrillation may ensue in pheochromocytoma, producing a decrease rather than the expected increase of blood pressure in attacks. During surgical procedures on the

heart, and rarely during cardiac catheterization, fibrillation of the ventricular myocardium may appear as an often fatal complication. The prevention of this complication is the rationale for preoperative administration of quinidine in these cases, and for the often routine use of quinidine in the acute stages of myocardial infarction. Coronary disease would seem the most likely etiological factor in this case, although no autopsy was obtained.

Cardiac arrhythmias are a major consideration in the differential diagnosis in syncope and convulsions and may go undetected unless the patient can be observed during an attack.

# Editorials

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## VA DEAF TO HOOVER COMMISSION

Hoover Commission recommendations designed to save money and promote efficiency within the Veterans Administration's medical program have been rejected by that agency. A 100-page report to the House Veterans Affairs Committee by VA turns down all of the major commission proposals in the health fields, criticizes others without taking a definite position, and supports only a few. The recommendations were made public February 28, 1955, after the Hoover Commission (Commission on the Organization of the Executive Branch) had spent almost two years studying VA and other departments and agencies. Here is the way VA reacted to specific major proposals:

1. The commission's proposal for creation of a Federal Advisory Council of Health, that would replace the Rusk Committee and advise the President on all federal medical matters, including hospital construction, personnel training and military medical requirements. While admitting that there "is much to be said in favor" of such a council, VA warns that it should have limited power. "It is of paramount importance," says VA, "that any such body should operate only in an advisory capacity, without any prerogative to direct agency action. . ."

2. The commission recommendation that VA "consider" closing certain specified hospitals, that all surplus hospitals "be closed immediately," "that all construction authorizations be rescinded unless a contract has been signed or work started, and that VA close out all hospitals that "can no longer be operated effectively and economically."

VA stated that it was "by no means prepared to endorse the wholesale closings recommended by the task force." It said that a curtailment of beds would be virtually impossible, unless accompanied by a "well-defined change in existing legislative policy" regarding right of non-service-connected

cases to hospitalization. VA argued, too, that closings would be inadvisable without the approval of Congress.

3. The commission recommendation that a veteran's statement of inability to pay for non-service-connected treatment be subject to verification, and VA be authorized to collect in the future when and if the patient is able to pay. VA flatly opposed this. It advanced several arguments. First, the agency said that such a policy would require changes in the law. It noted that in only 200 non-service cases out of half a million hospitalized was the veteran found to be able to pay. Also, maintained the VA, Congress had made plain that it approved of the present policy on admission of non-service-connected cases and that it did not favor a change. The agency said it would be inconsistent to require an "in need" oath, subject to investigation, and then attempt to collect later. Its point was that a man able to pay would not be admitted as a non-service-connected case in the first place.

The Commission had suggested that payment might be obtained from health insurance companies. On this VA commented: The Commission's position "is rather misleading and unrealistic," inasmuch as the companies have "very largely" rewritten their policies to exclude reimbursement for hospital care at public expense. "It is beyond the power of Congress," the VA continued, "to require change of these insurance policies on this matter or to prohibit private persons from entering into such contracts."

In its report VA commented on a number of Hoover Commission suggestions not directed particularly at this agency, such as provision of health insurance for military dependents and U. S. civilian workers, both of which proposals VA indorsed.

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## CHIROPODY

The average physician probably knows less

of the profession of chiropody than he does of any other branch of medicine. A chiropodist (or podiatrist), is a specialist in the treatment of diseases of the feet. The chiropodist treats ailments of the human foot by means of local, mechanical, physical, surgical and medical methods. Chiropody does not use or teach cultist methods, or think other than as a definite unit of medically trained students with known obligations toward the parent body of medicine.

The educational requirements of a chiropodist closely parallel those of medicine and dentistry. His education consists of a pre-chiropody course followed by four years at one of the six schools of chiropody and foot surgery accredited by the National Association of Chiropodists. The curriculum consists of 4,400 hours or more in class rooms, laboratories and clinics and includes anatomy, physiology, embryology, histology, pathology, bacteriology, bio-chemistry, neurology, dermatology, physical therapy, roentgenology, orthopedics, podo-pediatrics, surgery, materia medica, therapeutics, physical diagnosis, didactic and clinical chiropody. In addition, several states require a one year internship in a foot clinic or hospital after graduation before an examination for a license may be taken. All six chiropody colleges grant a degree of Doctor of Surgical Chiropody (D.S.C.) except one which grants the degree of Doctor of Podiatry (Pod. D.). The degrees are synonymous.

Some chiropody colleges are associated with universities. In many instances, the members of the faculty teach at both the medical and chiropody schools. Each chiropody school has a large foot clinic where the students receive practical clinical instruction and experience. In some schools, as part of this training, externships are served at approved hospitals.

The first great step in America toward the recognition of chiropody as a special branch of the organized profession of medicine, may be said to have occurred in 1939, when the Judicial Council of the American Medical Association ruled that the practice of chiropody is not a cult practice. "Chiropody," the Council stated, "is rather a practice ancillary—

a handmaiden—to medical practice in a limited field considered not important enough for a doctor of medicine to attend and therefore too often neglected. General opinion seems to be that chiropody fairly well satisfies a gap that the (medical) profession has failed to fill." The Council also ruled that teaching by members of the American Medical Association in recognized schools of chiropody is not unethical. The United States Navy has accorded chiropody due recognition by granting commissions to its practitioners, and it is expected that the same recognition will soon be accorded by the Army.

The value of the chiropodist is evident in the various outstanding clinics throughout the country, in the New England Deaconess Hospital, Mayo Clinic, Mt. Sinai Hospital, New York Emergency Hospital, Georgetown University Hospital, Washington, D. C., Grave-New Haven Community Hospital, New Haven, Conn., Cedars of Lebanon Hospital, Los Angeles, and in numerous other institutions.

Charles Mayo, M. D. put the problem succinctly in these words: "I am convinced that doctors of medicine, myself included, have paid too little attention to the feet in their relationship to the condition of a patient and have made too cursory an examination of the feet, considering their importance to people with the beating they take and their potentiality as a source of discomfort and comfort. The doctor of medicine should be capable of recognizing foot ailments. When care and treatment of such conditions are necessary, he should refer the patient to those accredited and skilled in that specialty when such consultation is available."

Reuben Friedman, M. D., clinical professor of dermatology, Temple University School of Medicine, put it another way, "It has been estimated", he said, "that disorders of the feet occur in 80 per cent of women and in 60 per cent of men. Few practitioners of the healing arts are as familiar with the almost infinite number and variety, as well as the significance, of the signs and symptoms and diseases of the pedal extremities as is the chiropodist. Once he is engaged in active practice, the

chiroprapist sees more patients suffering from one form or another of diseases of the feet than does any practitioner of medicine."

The chiroprapist renders an especially valuable service to the diabetic patient and to the one with peripheral vascular disease. In fact, many hospitals have instituted chiropody services for their diabetic, peripheral vascular and orthopedic clinics.

In the management of the diabetic and in peripheral vascular disease, it has been demonstrated that prophylactic foot care means fewer infections. In one study, it was found that scrupulous podiatric prophylactic care improved the prognosis of foot infections 77 per cent. Joslin has emphasized the necessity of chiropody care in all diabetic and in peripheral vascular patients. Gray states unequivocally that in diabetics, the incidence of gangrene and subsequent amputations has been greatly reduced as a result of podiatric care.

The modern chiroprapist fills a definite need in medical care and is well fitted to assume the responsibilities of caring for the nation's feet. Chiropody needs and seeks the cooperation of medicine in promoting the foot health of the American people.

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#### READING IMPROVEMENT PROGRAMS

Much ado has lately been made over the matter of reading difficulties and what should be done about it. New methods of teaching and old methods have their ardent advocates. The truth of the matter is that there is something good in both the old and the new, and it is obvious that what is good should be selected from each. It is also true that no one method of teaching is the best method for every individual. This is not to say that I am "straddling the fence". On the contrary, my ideas are quite clear on the subject. Actually, the matter of individual attention, no matter what the kind or origin, accomplishes a laudable end.

There is a reading improvement program at our State University. I certainly have no objection to it. Indeed, I am all for it. Nor do I particularly care who is in charge or what methods he uses so long as he is honest. I have

made a considerable study of reading difficulties and know something, though not enough, of the subject. The *one and only* point which *must* be put over is this: the reading improvement program must not be used as a means of persuading people to purchase glasses. The person having trouble with reading is rarely in need of glasses to correct it. Nor are all kinds of exercises necessary. Speed in reading is attained in large measure by application, practice, and a will to improve. One must not overemphasize the importance of a course in reading improvement. Training and teaching in reading is not confined to a college course nor to any kind of limited course, but is a lifetime project.

Meticulous and constant supervision of this reading improvement program must be maintained as a protection for the students and the public against unscrupulous and mercenary persons.

J. W. Jervey, Jr., M. D.

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#### REPORT OF DELEGATE TO A. M. A. JUNE 1955

On Saturday, June 4, 1955, Civil Defense officials gave an interested audience of possibly 100-150 doctors a glimpse of what would happen if an H bomb were dropped within 200 or 300 miles of our home. With the development of each more powerful bomb methods and time of evacuation must be changed. For example, a bomb the size of the one dropped on Bikini would leave a crater one mile in diameter and about two hundred feet deep. Casualties from fall out would occur in an area varying with the direction and force of the wind currents 20,000 feet and on up. The average is usually considered about 7,000 square miles. Wind currents over four miles up (and the H bomb mushroom may go up to between 16 and 20 miles) are variable not only from day to day but from hour to hour. A competent meteorologist must be one of the team to advise about which way to go to avoid the fall out. The closer one is to the bomb burst, of course, the larger and hence the greater the danger from fall out.

The usual conception of the care of casualties has changed since Nagasaki. The professor of surgery there was about twenty miles in the country when the blast occurred. He immediately went into the heart of the city and worked all night. Nearly all his patients were dead by morning. He changed his location and went to the periphery of the destroyed area and seemed to accomplish much more. The doctor who first sees a casualty must decide whether he should

receive attention there or be sent back further for more careful work. The best man for this job is one who had that type work during the war. The more experienced surgeon must be further back to do whatever he can. At the first station—anoxia, shock, bleeding, and fractures should be controlled as much as possible. It is not practical to tie up a surgical team for an hour operation when 500 casualties are waiting to be seen, where a tracheotomy may save a life. Col. Shaffer spoke out against the use of a tourniquet except when that member is to be amputated, and that only as a last resort. Crushed hands and feet are very common and they should never be amputated at the front station. A week—ten days or two weeks may pass before major restorative surgery can be done. Pressure bandages, tracheotomies, pneumothoraces, shock, heart tamponade must be cared for at the front and the others sent on back.

The supplies called for and the complexities of caring for only 250 casualties are staggering. The Harris County Medical Society, of Houston, tried it. Each position was four deep in replacements—they drove 90 miles with all equipment and simulated care for 250 casualties. Communication and sufficient lighting were the chief lack. In case a bomb or bombs fall on the U. S. the Civil Defense authorities are figuring on 5,000,000 casualties. In or near a bombed area there will be no electricity except battery or locally generated, no water or contaminated water, no sewage disposal, no gas or telephone.

The Civil Defense officials were cheered by the large turnout of physicians. The Council of the South Carolina Medical Association has urged and so have the defense officials, that the doctors in South Carolina take the lead in their community to see to it that at least the population is informed of the possible dangers, that the doctors are organized and trained, not only to care for casualties that might occur in our state, but casualties that might come to us from other states. Each county medical society in the state should organize along practical lines of service because we may not have much if any warning.

Senator Kefauver told us that there are inter-continental missiles that travel at 2,000 miles an hour for which there is little or no defense. No military man feels that all enemy planes could possibly be stopped before they reach their target. England as small as she is spends 4 times our 50 million dollars that we spend on Civil Defense.

California is perhaps better prepared and informed than any other state. They have a number of trucks equipped for communication and power as well as hospital auxiliaries. They have trained decontamination squads with all necessary equipment. The October issue of the California State Medical Journal was composed entirely of articles on Civil Defense. South Carolina is not as good a target as California but at least we should know something about it.

This problem is one for each community, each

block—this is a buddy-buddy arrangement. Hysteria will be widespread. The doctors of South Carolina should get together locally, team all they can, and teach as much of the population as they can about this threat over which we have no control.

After the first day, and the meeting on Civil Defense, the regular program was followed.

A number of important topics were disposed of in the House of Delegates. In a great many states, especially in the west, osteopathy is widely practiced. In a number of communities osteopaths are the only practitioners of the healing arts available. In some localities osteopathic hospitals are the only ones for miles. There has been a feeling among some osteopaths and physicians that the training of each group is similar. A committee from the A. M. A. was allowed to go to all but one osteopathic schools (one of their best) to determine how nearly osteopaths receive the same training as physicians. This was done and two reports, a majority, and a minority, were given. The House of Delegates voted to accept the minority report which was to the effect that the study committee be thanked for its diligent work and discontinued, and that until such time as the osteopathic concept be discontinued in the catalogue and in the teaching in osteopathic schools that the A. M. A. not approve physicians teaching in osteopathic schools.

Another topic which drew long and loud argument in the reference committee was the one on the dispensing of glasses by an ophthalmologist and the owning of a drug store. The committee reported that in its opinion it is impossible for a code of ethics to be specific. It must state broad and general policies. The code of ethics does not represent law but a moral code. The A. M. A. does not have, and doesn't desire to have, police force to carry out the principles of the code of ethics. The reference committee suggested and the House of Delegates approve the following:

Dispensing of Drugs and Appliances by Physicians  
Sec. 8—It is not unethical for a physician to prescribe or supply drugs, remedies, or appliances as long as there is no exploitation of the patient".

The interpretation of "exploitation" determines what our ophthalmologist friends are justified in charging their patients for glasses fitted in their office.

To the thoughtful physician the section 8 quoted above is far from what most of us hoped for, but under the circumstances possibly the best possible solution.

The reference committee in its report emphasized again section 6, chapter I which reads, "The ethical physician, engaged in the practice of medicine, limits the sources of his income received from professional activities to services rendered the patient----" The dispensing of glasses and drugs places a great responsibility on individual physicians. Each must be governed by his conscience.

There was a great deal of disapproval of the

functioning of the Hospital Accreditation Board. The speaker of the House of Delegates was requested to appoint a committee of seven members to study and revise the functions of this Board and report at the next annual meeting. No member of the committee could be a member of the Council on Medical Education and Hospitals or the joint committee on the accreditation of hospitals. All physicians and hospitals which have complaints or suggestions should pass them on to this committee.

On polio vaccine the House of Delegates urged that it be distributed according to the usual procedure with new drugs. No department of the Federal Government should buy or distribute vaccine except for indigent patients. An expression of gratitude and admiration for his scientific achievement was sent to Dr. Jonas Salk.

The House of Delegates also:

Commended the "Medic" television programs.

Reaffirmed its previous recommendation that the United States withdraw from the International Labor Organization.

Approved the Headquarters Survey Report which included the statement that "the only public relations program of any permanent value is the private and public relations of the individual doctor". The future of medical practice in the U. S. depends upon how you and I conduct ourselves in our offices and in our community.

Tuesday evening was the inaugural program and was broadcast nation-wide over the ABC radio network. Dr. Hess, in his inaugural address, said that "unless we are willing to give of ourselves and our faith, our science will avail us little". Dr. Norman Vincent Peale, eminent clergyman, pointed out in his usual excellent fashion that "the drawing together of medicine and religion is a step in helping man toward proper use of his God-given potentials and qualifications."

The more important election of officers were: Dr. Dwight H. Murray, Napa, Calif., a general practitioner, as president-elect; Dr. Millard D. Hill, Raleigh, N. C., vice-president; Dr. J. J. Moore, Chicago, treasurer; Dr. E. Vincent Askey, Los Angeles, speaker of the House of Delegates; and Dr. Louis M. Orr, Orlando, Fla., vice-speaker.

Dr. Gunnar Gundersen, La Crosse, Wis., was named Chairman of the Board of Trustees to succeed Dr. Murray. Dr. James R. Reuling, former speaker of the house, was elected to fill Dr. Murray's term on the Board. Re-elected as Trustees were: Dr. L. W. Larson, Bismarck, N. D., and T. P. Murdock, Meriden, Conn.

It should be reiterated often that the House of Delegates is the policy forming body of the A.M.A. The House is advised by all the different councils and the headquarters staff. They are the great statistical and fact finding bodies. The work they do is not often publicised but it is enormous. The Board of

Trustees carry out the policies and directives of the House. The councils do the same thing because they not only seek and keep facts and information but carry out the policies of the A.M.A. If any doctor or group of doctors wishes a change in any policy of the A.M.A. he should begin with a resolution in his county society, then state association, and finally the A.M.A. When his resolution is brought up for discussion in a reference committee of the A.M.A. he has the right to be there and discuss it—indeed he is urged to do so. His resolution may be defeated, altered, or approved depending upon the majority vote of the House of Delegates. Not every recommendation of a reference committee is approved by the House of Delegates though generally this is true. No doctor should ever say or feel that the President, Secretary, Board of Trustees, or anyone is running the A.M.A. The responsibility of the Association belongs to every individual doctor who is a member. It's your and my and every doctor's Association.

## REPORT ON CLINICAL MEETING OF AMERICAN MEDICAL ASSOCIATION BOSTON, MASSACHUSETTS

November 28 — December 2, 1955

I found Boston quite cold on the outside but warm on the inside. The meeting was opened with an invocation by Dr. Edwin P. Booth, who was a close friend of the new Speaker of the House, Dr. E. Vincent Askey of California. The meeting was given impetus by the Speaker and Vice-Speaker, Dr. Louis M. Orr of Florida.

As usual there were any number of reports and resolutions—the reports from the various Councils and the Board of Trustees.

The President, Elmer Hess, gave an excellent talk, emphasizing the fact that the duty of the doctors was to take care of the sick folks. He thought there was too much complacency. We were informed that the various Councils now had legal assistance which was being utilized to our advantage. The cooperation of the bar members and the medical societies, particularly in regard to medical jurisprudence, was now being advocated, and in certain sections of the United States definite meetings are being held and progress is being made.

Stress was placed upon the Councils, especially medical education and hospitals. Local conditions control the doctors in association with the hospitals and there certainly should be cooperation between anesthesiologists, radiologists, pathologists, and the hospitals. Dr. Hess said "... the welfare of patients supersedes everything else."

The problem of the medical school faculty members engaging in private practice of medicine as a means of supplementing income is a situation that calls for close scrutiny and one that must be worked out satisfactorily, both to the practicing physicians and the medical schools.

The Doctor Draft Law is going to continue to exist and there is some cooperation between those in charge in the Pentagon and the American Medical Association.

HR 7225 was discussed and Dr. Hess gave the reasons why the A.M.A. was opposed to the measure. It is another instance of getting something for nothing, letting somebody who does not deserve spend your money.

Dr. E. Roger Samuel of Mt. Carmel, Pennsylvania, was selected as General Practitioner of the Year. I

had the pleasure of meeting him and found him a very astute and delightful gentleman.

A complete review of the various measures has been forwarded to the Delegates.

I attended the Pediatric Section of the Clinical Meeting on Wednesday, December 30. There were some interesting discussions.

It was a large meeting and well attended with several thousand doctors present.

William Weston, Jr., M. D.



## BLUE CROSS . . . BLUE SHIELD



### BLUE CROSS—BLUE SHIELD

There is an ever increasing crescendo of complaint in regard to the high costs of hospital care. The size of hospital bills provides seemingly firm reason for these complaints. However, a simple summation of hospital bills gives the amounts paid for hospital care without revealing the important reasons why the costs are so high. Until the reasons are understood and steps taken to correct them, there will be no decrease in the amounts paid to hospitals.

Perhaps, the most frequent explanation given for increasing hospital costs have to do with increasing food costs, larger payrolls for hospital personnel, and expanded and increased costs of therapeutic and diagnostic facilities. There has been a tremendous increase in costs in each of these categories, and that increase is reflected in the average per diem costs of hospital care. However, to argue that increasing costs in these several categories is the chief factor in increasing hospital costs, overall, is faulty. It is rendered so by the fact that the average stay in hospital, either figured on the basis of total admissions or figured on the basis of different categories of illness treated in hospitals, has been so shortened as to largely absorb or neutralize the increased per diem costs. To ascertain the true reason for the overall increase in amounts paid for hospital care, one must look for other causes.

Such other causes are not unrecognized. Much is being written about them, studies have been made and reports prepared. Blue Cross and commercial carriers have long recognized them.

Dr. Kenneth B. Babcock, Director, Joint Commission on Accreditation of Hospitals, published an article in the *Journal of The Tennessee State Medical Association* in June which was condensed in *Current Medical Digest* in which he discussed some of the other causes of increased hospital costs. He states, "Thoughtful medical men and hospital administrators as well as the executives of hospital prepayment plans, are terrifically concerned over the rising rate of contract utilization as reflected in days of service

rendered to contract holders." He calls attention to the fact that prepayment insurance carriers and especially Blue Cross, prepare their contracts to cover health care of the sick who need hospital treatment. These contracts are insurance against the costs of illness and injury necessitating hospitalization. They are not designed to offer full medical coverage.

Dr. Babcock divides the blame for improper utilization into four categories: that of the prepayment plans themselves, that of the patient, that of the hospital and that of the doctor.

Overzealous selling methods and misleading claims of benefits offered sometimes give rise to expectations of benefits which are not provided by the contract. Our own Blue Cross and Blue Shield plans have been guilty of this at times—not, as I believe, through intent, but rather because of careless copywriting.

The element of human psychology enters into the second category. The thought, "I'm paying for hospitalization insurance, I ought to use it," gives rise to tremendous pressure upon the doctor to admit cases of minor illness, those for x-ray, laboratory and other diagnostic procedures or for general physical evaluation. Although these people were sold sickness and injury insurance necessitating hospital care, they expect and demand total medical coverage. Unfortunately, experience in our claims department shows that far too often the doctor himself suggests hospitalization for diagnostic work-up, and when full benefits are denied, he writes in supporting the patient's claim for such benefits. Further, it is surprising how often in these cases, the doctor throws the entire book of orders at the patient, without any thought of indications and selection of examinations. In attempting to evaluate questionable cases as to coverage, we seek answers to these questions by study of the diagnosis and the recorded history of the present illness, namely: did the patient require hospital care at the time of admission, were the diagnostic examinations a part of and consistent with the illness for which he was hospitalized, and could the diagnostic examinations have been done equally and safely and ac-

curately with the patient an out-patient?

As a further means of correcting the patient's demand for unnecessary hospitalization, Dr. Babcock stated that Blue Cross and insurance companies "must explore new fields and come up with answers and policies paying for hospital out-patient visits, annual physical or diagnostic examinations and liberalization of payment for office procedures." He finally advocates an educational program to drive home the reality, "Abuse your insurance and watch your premiums go up."

The role of the hospital in encouraging excess utilization as seen by Dr. Babcock is first in failing to enforce a stop order for antibiotics and other expensive drugs, and delays in executing and reporting on procedures ordered.

With regard to the role of physicians in encouraging or allowing excess utilization, Dr. Babcock says, "The greatest single source of abuse of insurance or Blue Cross is the admission for diagnosis only." He calls attention to the fact that the tests and examinations in a case of check-up examination make it the most expensive form of hospitalization. He believes to cure this evil, all companies will have to refuse payment on such cases and the doctor has to advise the patient that such admissions are not included in his coverage.

Excess utilization, which has been discussed, is the chief factor in the high costs of hospital care, when considered on a group rather than an individual basis. It can be reduced by understanding cooperation by the patient, the hospital and the doctor. A failure to cooperate can result only in raising the costs of insurance whether it be by commercial companies or by Blue Cross. The costs for significant coverage is already too high for many of our people, and particularly those people for whom Blue Cross and Blue Shield were organized. The alternative to pre-paid voluntary sickness and injury insurance is compulsory government insurance.

Jan. 6, 1956

J. Decherd Guess

## ROPER HOSPITAL AND THE MEDICAL COLLEGE HOSPITAL

William H. Prioleau, M. D.\*\*

Charleston, South Carolina

Four years ago the Medical Society of South Carolina was reorganized so that it could better carry out the purposes of its trusts and endowments as to providing medical facilities for Charleston. At that time problems were anticipated and solutions offered. We are now faced with those problems, made worse by the passage of time, and we have no assurance that a reasonably satisfactory solution can be found. The Medical College Hospital is now open. It is taking

\*Medical Society of South Carolina Annual Meeting, November 17, 1955.

\*\*Retiring President, Medical Society of South Carolina and President-Elect, South Carolina Medical Association.

over College functions heretofore performed by Roper, and very important to Roper from a standpoint of accreditation. Roper is losing federal and state agency cases, so necessary in teaching and residency training. It is losing the patients of the full time faculty and can expect to lose an undetermined number of patients of the part time faculty. To the College Hospital it is losing personnel in all fields due to more attractive working conditions; among those remaining there is unrest as to the salary scale and the security of their jobs. In addition the county is trying to reduce the amount spent for the care of the indigent.

Roper is not prepared for these drastic changes. This is due in great part to the fact that the lay public and the medical profession in general have been under the impression that the Medical College Hospital would take care of all of the needs of the community. Some county officials saw it as a ready solution to the care of the indigent. Warnings have been uttered from time to time but little interest could be aroused. Only recently has there been some indication of realization by the public that the Medical College Hospital will not fill the needs of the community. For the first time in a number of years Charleston has priority in obtaining Hill-Burton funds for hospital construction.

Roper is meeting the situation by having work not essentially of a nursing nature done by secretaries, aides and assistants. It is revising salary scales. It is closing some wards, and combining services and functions where possible. These last measures are not economically sound and are not conducive to satisfactory professional work. They are only temporary makeshifts.

While the Roper Main Building has been outmoded for many years it has been possible to operate it satisfactorily on account of being able to fill it to capacity and to obtain staff personnel. Now with the loss of support from the state agency patients the cost of care of the county indigent cases is steadily mounting. The difficulty of staffing is acute and no relief is in sight. It is doubtful how long the Main Building can be kept open for the care of the county indigent and the few remaining service cases. This building forms the main connecting link with the Medical College as it houses the patients of chief value in teaching and residency training. Closing it would mean a serious loss to Roper from an accreditation standpoint.

The importance of Charleston County indigent patients in the teaching program of the Medical College cannot be over-emphasized. If they are not available through Roper under conditions satisfactory for teaching, it can be assumed that the Medical College will gain access to them in some other manner. The Medical College could not suffer such loss of teaching beds, particularly of this type, as it was mainly on account of the need of additional teaching beds that the Medical College Hospital was built.

In order for Roper to function satisfactorily as a community hospital there is needed an addition to the Private Pavilion to house the services now in the Main Building and facilities for patients of colored physicians. This would promote more efficient administration, obviate unnecessary duplication in personnel and equipment, and raise the standard of the professional work. Of greatest importance, it would permit caring for the county indigent cases in a satisfactory manner, thus making it possible for Roper to continue to be a teaching hospital closely affiliated with the Medical College.

Though most essential, new construction alone would not assure successful operation. In the final analysis the policy of the Medical College Hospital will determine whether Roper will be able to operate as a fully accredited hospital.

In a recent publication of its operational plan, it is stated that charges at the Medical College Hospital will be comparable to those of other hospitals in the area. Such a fee schedule is made possible by state subsidy. Hospitals dependent mainly upon income from patients cannot compete with it either in services to patients or salaries to personnel. Some restrictions are necessary if these hospitals are to continue to operate.

In its admissions policy it is noted that the only stipulation is that the patient be referred by a physician or recognized agency. The term referred is subject to various interpretations; heretofore in this locality it has been used very loosely. Admission to the Medical College Hospital should be only upon a basis of medical needs. Especial care should be taken not to admit patients who could be satisfactorily treated in a community or private hospital in their vicinity. Part time faculty members should be particularly careful not to abuse the privileges of their College position and seek admission of their patients as a means of currying personal favor and gaining professional prestige. As the Medical College Hospital will be limited to referred cases, mostly of the problem type, the Roper Hospital should supply for teaching purposes cases of a more general nature.

In the Medical College Hospital the state is making an entrance into the private practice of medicine through the faculty of the Medical College. It is introducing into the state the ideology of fulltime practice. By many institutions this is considered desirable from a standpoint of teaching. The full time faculty will constitute the core of the hospital staff. The part time faculty will cover the subspecialties and will do some work in the major departments as long as it is mutually advantageous to both parties.

In brief the state is entering the private practice of medicine through a form of professional control of patients and subsidy of hospital costs. These deviations from the generally accepted principles of medical practice are justified in the cause of medical education, the high cost of which could not be met other

than by the state. As long as they are properly restricted there should be no cause for concern. In its efforts to improve medical education in the state, the Medical College Hospital should have the full support of the medical profession. As it is in the developmental stage generous allowances must be made. Modifications of its policy will be necessary and should be accomplished quietly and with dignity.

The critical period for Roper is during the first few years of the opening of the Medical College Hospital rather than later when it is firmly established and can adhere to a strict referral policy. Political pressure beyond the control of and not desired by the College may be applied to make it relax its admissions policy so as to fill its beds and reduce the operating deficit. If adhering to a strict admissions policy results in a slow opening, the state should bear the cost of hospital maintenance as well as that of assuring the full time faculty of an adequate salary. A short-sighted policy aimed at a rapid filling of beds would result in unfair competition with neighboring hospitals and jeopardize the support of the Medical College Hospital by the medical profession of the state. It would destroy the usefulness of the Roper to the College for teaching purposes, and seriously impair its value to the community. A state referral hospital closely affiliated with a highly accredited community hospital would provide an ideal setting for medical education. It would prove advantageous to the Medical College and the community. A full realization of this by the governing bodies of the state, the authorities of the Medical College and the community should lead to its accomplishment.

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Somewhere along the line, training in the technique and understanding of physical diagnosis has obviously lagged. Why else would young men who appear to be intelligent and highly educable fail to palpate large livers and spleens? Why would they have difficulty seeing—let alone interpreting—obvious precordial pulsations? Why would they fumble in their attempts at simple neurological examination, or why would so many have no clear idea of what structures make up the silhouette of the heart as it is seen in the x-ray? These deficiencies I have seen, and they represent only a sample. They occur too often and are emphasized when such men may be found well stuffed with milliequivalents and versed in electrocardiography. Those who underrate the high importance of physical examination in the study of patients declare that the laboratory, the x-ray, and our instruments of precision give us highly desirable measurable findings and information, of course, not otherwise obtainable. With this I agree. However, our modern passion for measurement should not blind us to the fact, which expert clinicians can clearly support, that clinical examination has much to contribute and in many instances far more than any test or device now known.

*Howard P. Lewis, J.A.M.A., Aug. 20, 1955*



## PRESIDENT'S PAGE

I recently had the opportunity of meeting with the Maternal Welfare Committee, composed of Dr. Frank Geibel, Chairman, Dr. Hilla Sheriff, Dr. J. P. Booker, Dr. J. S. Garrison, Dr. H. B. Morgan, Dr. H. H. Fouche, Dr. Wesley Snyder, Dr. David Watson, Dr. Lawrence Hester, and Dr. Rowland Zeigler. I learned at firsthand how important the function of this committee can be. The maternal deaths, histories, and reports were carefully studied, conclusions and recommendations made toward reducing maternal death rates. I believe that all who practice obstetrics would find it worthwhile to meet with this committee. The committee proposes to publish some case findings, they should be very valuable and enlightening.

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The committee studying the Coroner-Medical-Examiner system consisting of Dr. Strother Pope, Chairman, Dr. Pratt-Thomas, Dr. Harold P. Hope, Dr. Joseph W. McMeans, and Dr. R. F. Zeigler are very interested in their problem. Dr. Pope tells me there is increased public interest as shown by meetings and newspaper comments appearing in Anderson, Conway, Greenville, and Columbia. It has been pointed out that the present coroner system is outdated, that the present law in South Carolina sets forth no prerequisite for the office. Quite a few states have adopted the medical examiner system, and others on a partial basis, during the past year, North Carolina being one of them. Certainly, the coroner's office is important, and proper medical assistance is very necessary in arriving at the cause of many violent, accidental, and sudden deaths.

I wish that space permitted discussion of the activities of other committees. Their cooperation has been most gratifying.

O. B. MAYER

# THE SOUTH CAROLINA ACADEMY OF GENERAL PRACTICE



## THE SOUTH CAROLINA CHAPTER OF THE AMERICAN ACADEMY OF GENERAL PRACTICE

The American Academy of General Practice has decided that the state units of the academy should be designated as chapters of the national organization. We have adopted the change in our name to the South Carolina Chapter of the American Academy of General Practice.

Charles N. Wyatt, President-elect of S. C. Chapter of the A.A.G.P., has been appointed to the nominating committee of the national organization.

The S. C. Chapter has passed resolutions opposing an extension of the "give-away" provisions of the Social Security Act. We have advised all of the S. C. members of U. S. Congress of our action.

The S. C. Chapter has voiced opposition to allowing any exhibitor who has made displays at "QUACK"—Naturopaths and "Neckbreakers, etc"—meetings to have exhibitions at medical meetings.

The A.M.A. is fostering the development of "divisions" or departments of general practice in medical colleges and hospitals.

The Eighth Annual Scientific Assembly of the American Academy of General Practice will be held at Washington, D. C., March 19-22. This is only an overnight train ride for most S. C. physicians. These meetings are tailored to the interests and needs of the busy and alert general practitioner. This is an opportunity for all physicians in the state to get a first hand view of the type of organization the American Academy of General Practice is. Make your reservations thru the AAGP Housing Bureau, 1616 K Street, NW, Washington 6, D. C.

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## CORRESPONDENCE

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### THE PROPOSED AMENDMENT TO THE OPTOMETRY ACT

A BILL TO AMEND Section 11, Section 56-1072, Code of Laws of South Carolina, 1952, is amended by striking it out and inserting in lieu thereof the following: "The testimony of an optometrist who holds a license to practice and is licensed and registered

under the provisions of this Chapter shall be received by any official, board, commission, or other agency of the state or of any of its subdivisions or municipalities as qualified evidence with respect to any matter defined in Section 56-1051 of this Chapter as constituting the practice of optometry and no official, board, commission or other agency of the state, or of its subdivisions or municipalities shall discriminate between the practitioners of optometry and other ocular practitioners."

The South Carolina Society of Ophthalmology and Otolaryngology have met several times and its officers and committees have worked untiringly in an effort to defeat this Bill. This Bill last year got as far as the Committee on Military, Public and Municipal Affairs. There it is to be taken up at the forthcoming meeting of the legislature. We in ophthalmology know that their effort in South Carolina is only a part of the main push by the American Optometric Association on a nationwide basis to allow optometrists to practice medicine.

They have written their own definitions and in various and devious ways tried to cover up their real intent and purposes.

#### Definition of Optometry:

Medical Dictionary: Optometry is the measurement of visual acuity and fitting of glasses to correct visual defects. A term adopted by opticians (a maker of optical instruments and glasses), who prescribe and fit glasses.

Webster's Dictionary: Optometry is 1. Measurement of the range of vision, also loosely the measurement of other visual powers. 2. Scientific examination of the eye to detect diseases or defects: prescription of correctional lenses or exercises but NOT the use of DRUGS or supplying glasses.

In South Carolina the laws of optometry were at first satisfactory but in the forties "Contact lenses and Orthoptic Training" were added to the Law.

#### "Complete Eye Care"

The American Society of Optometry, in June 1954, at the annual convention resolved that the field of visual care is in the field of optometry and should be *exclusively* the field of *optometry*.

In Georgia, the summer of 1955, juvenile delinquency and child care were a psychological problem. The radios advertised "See your optometrist. This may be the cause of the problem."

In New Jersey the House of Representatives had a bill that a school must employ an optometrist for ocular examination. It was MANDATORY that he be employed.

In Pennsylvania they had a bill, which was defeated, extending optometrists medical and surgical privileges. This would deny refractive work for the medical doctors (ophthalmologists).

In Missouri they have bills to permit any licensed optometrist to diagnose and treat ocular diseases.

In Oklahoma, Senate Bill 155, gives optometrists the

right to make all tests and measurements for diseases and diagnosis (of glaucoma and other diseases of the eye.)

An M. D. couldn't check visual acuity then.

In Oklahoma, Bill 777, (in the House) would permit any licensed optometrist to diagnose and treat ocular diseases. It is coming here in South Carolina unless we stop it.

The general practitioner would be in a particularly unfortunate position. The familiar eye test chart in his office would become not only unnecessary but dangerous, for he might be held liable to a fine of \$500, thirty days in jail, or both, every time he "practiced optometry" by using the chart to test vision; perhaps in connection with a diagnosis, or possibly for the purpose of completing an insurance examination or a compensation or other form of report.

The ophthalmologist would be in only a slightly better position, for he would be carrying on his refractive work only by virtue of an "exemption" granted him under the state's optometric law; an exemption which would permit him to refract and carry on other "optometric" functions.

"The people must resort to the polls, not the courts."

The attempted law shows that under such legislative authority, optometry without question seeks to infringe detrimentally both upon general medicine and ophthalmology.

We may lull ourselves in the thought that such a situation would never come to South Carolina, but here it is!

Winthrop College sent out the following letter to their students 1955—two paragraphs of the letter:

"During the week after your physical and after you have registered and received your class schedule, please return to the infirmary and arrange for an appointment to see the doctor and receive a report of your physical. You may at the same time, if you wish, make an appointment with the optometrist for a complete eye examination."

"A further very detailed examination of vision by the local optometrist for those freshmen who have not had a recent refraction by an eye specialist. These examinations are made in the office of the optometrist by the infirmary."

In 1954 an optometrist, without permission, went to a John's Island school and set up refracting and selling glasses—as soon as the Health Officer found out about it, he put a stop to it.

In October 1955 a North Charleston optometrist threatened suit against a public health nurse for referring school children to eye physicians for correction of refractive errors.

In October 1955 a North Charleston optometrist said that a group of Shriners would donate an "orthorator" for school use provided the children with eye defects were referred to optometrists.

September and October 1955 civil employees of the Charleston Naval Base were handed "orthorator" re-

ports with instructions to go to an optometrist for eye examination. A letter signed by every eye physician in Charleston was written to the Commandant of the Sixth Naval District protesting this directive. Copies of this letter were sent to the Surgeon General, U. S. Navy and Congressman of this district. Immediately reply came back that some stenographer had made the mistake.

Columbia University discontinued its school of optometry. Optometry is not a learned profession, it is a technique. Optometrists are technicians, not physicians.

The fact is, of course, that the entire area of eye care is within the province of ophthalmology. A little more than a generation ago when sight-testing opticians set themselves up as "optometrists", they secured legislation to reserve for themselves, alone among laymen, the privilege of refraction. In the legislative declarations reserving this privilege to optometrists, it was necessary to make it unmistakably clear that such restrictions generally on the power to refract, were not intended to apply to the **MEDICAL PRACTITIONER TO WHOM REFRACTION AND ALL OTHER ASPECTS OF EYE CARE WERE MATTERS OF UNDISPUTED RIGHT, BASED UPON HIS MEDICAL LICENSE.**

Thus, these so-called exemptions actually "GRANTED NOTHING". In fact, they are not even exemptions. They are nothing more or less than "non-applicability clauses", and do no more than recognize an existing situation. And to imply that the medical practitioner now undertakes refraction or any other particular aspect of eye care as the "exempt" practice of optometry, done under optometric sufferance by means—as the resolution states of an exemption "granted ophthalmology, is more than a source of irritation; it is **ALSO A WARNING SIGNAL.**

It is a "WARNING SIGNAL" because it calls attention to optometry's very obvious projected technique of gathering certain eye care functions solely to itself by the basically simple process of 1. Gaining acceptance of the idea that these functions are optometric. 2. That others perform them solely because they have been specifically "exempted" from the optometric law; so that 3. The right of others to perform these functions may be taken away from them by the relatively simple process of withdrawing the so-called "exemptions" in their favor.

We come back to the basic fact that every technique of eye care is traditionally, properly and legally within the province of medicine, and every declaration to the contrary should be immediately met and answered, as otherwise simply by default optometry may gain acceptance of a concept by which it so clearly seeks to enlarge its own field, at the expense of medicine and medicine's ancillary services.

Optometry itself gives its own specific meaning to the term "ophthalmology" by reaffirming its 1938 statement of policy wherein it had distinguished between

## AMERICAN ACADEMY OF OPTOMETRY POST-GRADUATE COURSES

Lake Hotel - December 7, 8, 9, 1955, Chicago

### Course 35 Scleral and Corneal Tonometry

Harold Simmerman, O.D.  
Wenonah, N. J.

Ralph E. Wick, O.D.  
Rapid City, South Dakota

A four-hour course—\$8.00  
Periods: W-1, T-1.

This course is designed to acquaint the practitioner with the two principal methods of measuring intraocular pressure. Each member of the class will have the opportunity of obtaining experience with both methods.

Applicants: Any one, however, members of the Academy 1955.

Cancellation: In case of cancellation, providing such cancellation is received

Chairman  
Instruction

### Course 36 Glaucoma

Monroe J. Hirsch, O.D., Ph.D.  
Ojai, Calif.

Harold Simmerman, O.D.  
Wenonah, N. J.

A two-hour course—\$4.00  
Periods: T-E, F-E.

The incidence of glaucoma especially in the aged makes it necessary that every optometrist fully understand this complicated visual disorder. To meet this need a specific course on the disorder was organized. It includes the etiology, diagnosis, prognosis and treatment. Special consideration is given to the optometric approach of this disease.

no later than November 19, 1955.

"PHYSIOLOGICAL EYE CARE KNOWN AS OPTOMETRY AND SURGICAL EYE CARE KNOWN AS OPHTHALMOLOGY."

In this asserted distinction, optometry placed no PRACTICAL LIMITATIONS UPON ITS OWN BOUNDS, as the word "physiological" REFERS MERELY TO BODILY FUNCTIONS, so that its use can EMBRACE ANY OR ALL OF THESE FUNCTIONS, AND HENCE ANY AND ALL PHASES OF EYE CARE.

The Eye, Ear, Nose and Throat Society has hired the distinguished Mr. William Prioleau, formerly secretary to Mr. Byrnes when he was governor, to look out for us here in Columbia, and to largely represent the EENT Society's first half of the two part plan. He was recommended to us by Senator Richardson and others as the best in his field.

The S. C. Medical Association has become very active against this bill. At a recent meeting of the Council, they asked us to call on them. They appointed Dr. Stokes and Dr. Gressette, two members of the council, to be liaison agents. And our "ever present help in time of trouble" Jack Meadors, has, with the approval of Council, agreed to join the all out fight and to direct that part of the fight which will be the responsibility of the state association—the calling of chairmen of legislative committees of the state society, getting out letters as he has already noteworthy done, advising us which legislators he knows to be against us, etc. This is the second half of the plan!

Mr. Prioleau and Mr. Meadors will head up the two separate teams. Dr. Roderick MacDonald is correlator. Every legislator in South Carolina must be called on

and his understanding support gained. It is hoped that every doctor in the state will acquaint his legislator with the incontrovertible facts.

We don't care how many people optometrists fit glasses for, so long as the public is not forced into going to them. We want to examine patients for glasses too.

Ophthalmologists are PERFECTLY WILLING FOR THE TEACHER, SCHOOL NURSE, D.P.W. WORKER, ETC., who have had years of experience in these matters, to send the patient to the man they think best for the patient. The D.P.W. Worker, for instance, knows well which optometrists and ophthalmologists in her territory are capable. We don't want people TRICKED OR COERCED into going to optometrists. The optometrists argue that they simply want to look at the eye-grounds and if pathology is present refer the patient to an ophthalmologist. They used this argument very effectively at the open hearing. They are too poorly trained to realize that the most difficult thing even the best medical doctors have to do is to determine that there is or is not pathology present.

If this bill becomes law it will put people on relief, who with proper eye care, would have useful vision restored. If this bill becomes law, it will represent the return to the education standards of fifty years ago when some medical schools turned out improperly trained doctors. It required tremendous effort to get rid of the second rate medical schools. In effect, we are threatened with their return. For, if students can go to school for five years and graduate (five years being what the BEST optometric schools require) as

Doctors of Optometry—in short—Eye Physicians as far as the public is concerned, IT WILL BE A SAD DAY FOR THE PEOPLE OF SOUTH CAROLINA. South Carolina Law is that school children be examined by a physician. The eyes are just as much a part of the child as his feet, skin, lungs, heart, or any other organ of his body. Optometrists are not physicians, they are technicians.

1. Public Health in South Carolina trains and certifies many women to be midwives. They do a good job in many normal deliveries, but it would be just as silly to give them the same legal standing as obstetricians as to give legalized eye physician status to optometrists.
2. They claim they are only asking to make school examinations, highway examinations, D.P.W. examinations, and that their testimony be accepted in court on a par with that of an eye physician. This is only an opening wedge—a foot in the door. What they really want is what the national association indicates—to practice medicine—to do all the many tests to determine vision. Under their law they have the legal right to use atropine and pilocarpine, very powerful drugs for good or evil in treating iritis and glaucoma. They would have the legal right to do glucose tolerance tests, to study cataracts, to do B.M.R.'s, spinal taps, electro-retinograms and many other tests.
3. The citizens of our state would be in more danger from them than from the naturopaths.
4. To legislate for this group is to legislate for a minority group that already abuses the power they already have.
5. The South Carolina Eye, Ear, Nose and Throat Society and the Council of the South Carolina Medical Association urges each Medical Doctor in the state to help fight this bill. It is the responsibility of the doctors to protect the people of South Carolina from legalized charlatanism.
6. The passage of any law that would prevent a nurse, teacher, doctor or any other person from advising a patient to go to the doctor who would give him the best examination is grossly wrong. It is the dictator way.
7. It is the duty and responsibility of the medical profession to look after the entire health of our people. Timothy 1 V- VIII: "But if any provide not for his own and specially for those of his own house, he hath denied the faith, and is worse than an infidel."

\*Read before The Charleston County Medical Society, December 13, 1955.

Clay W. Evatt, M. D.

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## NEWS

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The American Academy of Obstetrics and Gynecology has announced that James E. Bell Jr., M. D., Sumter, S. C.; Lawrence N. Bellew, M. D., Green-

ville, S. C. and Bruce Swain, M. D., Anderson, S. C. were inducted into Fellowship in The Academy at the Annual Business Meeting during the Fourth Annual Clinical Meeting of the organization.

The Committee on Grants of The John A. Hartford Foundation, Inc. has awarded a grant to Roper Hospital in the amount of \$108,000.00 for the purpose of an evaluation of diagnostic methods and treatment in arterial obliterative diseases. This study, to be done over a period of three years, will be under the direction of Dr. J. Manly Stallworth, associate in the department of surgery at the Medical College and will be carried out in Roper Hospital.

Admissions to the sponsored research and teaching beds will be selected as follows: (1) Cases with arterial obliterative diseases for use as a control or test subjects for the clinical research program; (2) medical indigents having arterial disease, representing cases of a teaching value at either undergraduate or postgraduate (interns and residents) level; (3) other patients upon whom extra hospitalization for research procedures would impose an undue or unfair hardship.

New officers of the Greenville General Hospital Medical Staff are Dr. William Hood, president, to succeed Dr. William Schulze; Dr. Thomas Furman, vice president, and Dr. William DeLoache, secretary.

New officers of the staff of St. Francis Hospital, Greenville have been named. Dr. M. Gordon Howle will succeed Dr. John K. Webb as president. The new vice president is Dr. Sayge H. Anthony, who succeeds Dr. William S. Hawkins. Dr. Lawrence N. Ballew succeeds Dr. Howle as secretary.

Spartanburg County's new Doctor of the Year has been practicing medicine for 46 of his 72 years, and has delivered between 5,000 and 6,000 babies.

He is Dr. D. Herbert Smith, who maintains offices both in Pauline and Spartanburg.

Dr. Smith was named recipient of the honor at the County Medical Society's annual meeting.

Dr. J. E. Lipscomb has been named president-elect of the Greenville County Medical Society. He will take office next year, succeeding Dr. Henry Ross. Other officers are Dr. David P. Reese, vice president; Dr. Tom Whitaker, secretary, and Dr. A. Heide Davis, treasurer.

Dr. Carroll Bowie has been named president of the Anderson County Medical Society to succeed Dr. Henry S. Jordan.

Other new officers are Dr. James C. Belk, vice president; Dr. William Hunter of Clemson, secretary; and Dr. S. H. Huff, treasurer.

Three delegates named to the state convention include Dr. Joe L. Wyman, Dr. R. E. Edmonds, and Dr. Henry Jordan.

Named to the Board of Censors were Dr. J. B. Latimer, Dr. Claude Prevost and Dr. William Wilson Orr.

Dr. Louis G. Llewellyn has recently arrived in Lancaster to assume his duties as Medical Director of The Springs Cotton Mills.

Dr. Llewellyn was engaged in the private practice of medicine in Pocomoke City, Maryland, until recently, at which time he was president-elect of the Maryland Chapter of the Academy of General Practice and president of the Worcester County Medical Society. He is a Fellow of the American Medical Association and a member of the Nu Sigma Nu Medical Fraternity. He received his AB degree from Johns Hopkins University and his MD degree from the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, Maryland. He served two years as Medical Officer of the United States Navy Medical Corps. For four years he was Deputy State Health Officer of Maryland State Health Department. He was also Regional Medical Consultant of the National Foundation for Infantile Paralysis, New York.

Dr. Llewellyn does not come to practice medicine actively but to supervise the First Aid Department, Plant Sanitation, Anti-Allergy, Safety and Insurance Programs. However, he will cooperate in any medical staff work affecting the welfare of the employees of The Springs Cotton Mills.

The Florence City Council appointed two men to the city board of health at their monthly meeting in December.

Named to a five-year term was Allen Eagerton, who succeeds R. B. Barham, and Dr. Julian M. Way to a one-year term to fill the unexpired term of the late George A. Brogdon. Dr. L. R. Dixon, Jr. was re-appointed chairman.

The new officers of the Columbia Medical Society are: Dr. Rudolph Farmer, vice president; Dr. W. T. Barron, president; Dr. Harold Jerve, secretary; Dr. Charles Crews, treasurer; and Dr. Charles Holmes, editor of the society's publication, *The Recorder*.

New officers, commission and committee chairman were selected at a recent meeting of the South Carolina Academy of General Practice, as follows: Commission and Committee Chairmen are Drs. I. R. Wilson, Jr., Charleston; J. H. Cutchins, Easley; R. E. Gregory, Greenville; R. W. LaRoche, Camden; T. G. Goldsmith, Greenville; J. E. Hair, Due West; K. K. Shealy, Columbia; Homer M. Eargle, Orangeburg; J. H. Guess, Union; H. E. Jerve, Columbia; J. S. Garrison, Johnston; W. W. King, Batesburg; and W. H. Speisegger, Charleston. Officers are Drs. G. P. Richards, Charleston, vice president; G. W. Price, Spartanburg, board of directors; W. T. Hendrix,

Spartanburg, board of directors; C. N. Wyatt, Greenville, president elect; H. W. Mead, Pendleton, president; and H. M. Whitworth, Greenville, secretary-treasurer.

Dr. Eargle, who served as vice president of the Academy for the year ending September 30, 1955, has been reelected for a second term as chairman of the Commission on Education and Medical Coordination.

The Spartanburg County Medical Society elected the following officers for 1956: Dr. William A. Wallace, president; Dr. Robert Ralston, vice president; Dr. John N. Miller, Jr., secretary; and Dr. Harwood Beebe, Jr., treasurer.

Dr. Robert Thompson, formerly stationed at Donaldson Air Force Base, Greenville, has gone to Anderson to do general practice with Dr. James Halford. Dr. Thompson did practice in Texas for a few years after completing his study at Duke University.

The thirty-fifth annual New Year's meeting of the Marlboro County Medical Society was held at Bennettsville January 12, 1956. Dr. Arthur J. Merrill of Atlanta spoke on "Acute Renal Failure".

The Coastal Medical Society held its meeting on December 15, 1955 at Walterboro. The Scientific Program was a paper on "Current Concepts of Hypercholesterolemia" by Dr. Edwin Boyle of the Medical College.

Dr. James L. Walker, of Clinton, and Dr. James Macdonald, formerly of Joanna, announced their association for the practice of general medicine with offices at 99 Hampton Street, and 1 Joanna Square, Joanna.

Doctor Macdonald comes to Clinton from Joanna where he has practiced medicine since July, 1954.

Doctor Walker has practiced at the Hampton street office since September, 1953, when he returned from two years' service with the army. He originally came to Clinton in August, 1950.

Porter F. Crawford, M. D., has announced the opening of an office in Spartanburg for the practice of dermatology.

Dr. Crawford comes there from Burlington, N. C., where he practiced for the past two years. He was formerly with Dr. Howard Steiger in Charlotte, N. C. and received training in dermatology at the Cleveland Clinic in Ohio and at Duke Hospital in Durham, N. C.

He interned at Memorial Hospital in Charlotte. He was a captain in the Army, and served in Panama, Canal Zone. He was certified by the American Board of Dermatology in 1953.

The new officers of the Newberry County Memorial Hospital's medical staff took over their duties on January 1, 1956.

These new officers include: Chief-of-staff, Dr. E. Gordon Able; assistant chief-of-staff, Dr. E. H. Moore; member-at-large, Dr. Von A. Long, and secretary-treasurer, Dr. J. Claude Sease.

Other new officers are: Chief-of-surgery, Dr. Ralph P. Baker; chief, eye, ear, nose and throat, Dr. Robert E. Livingston; chief-of-medicine, Dr. V. W. Rinehart; chief-of-pediatrics, Dr. C. A. Dufford, Jr.; chief-of-obstetrics, Dr. Elbert J. Dickert, and chief-of-laboratory, Dr. Foster N. Martin.

Dr. William B. Gamble, Jr. has opened an office for the practice of pediatrics at 16 Windermere Boulevard in Charleston, S. C.

He will be associated with Dr. Walton L. Ector.

Dr. Gamble is a graduate of the University of South Carolina and the Medical College of South Carolina. He completed his internship at Roper Hospital in 1949 and was in general practice in Enoree for two years prior to entering the Army Medical Corps.

He returned to Roper in 1953 as an assistant resident in pediatrics and served in that capacity until June of last year when he became a resident and teaching fellow at the hospital and at the Medical College.

Dr. J. W. Bell, chairman of the Greenwood County Board of Health will serve as administrative director of the County Public Health Department until a new director is named.

Dr. M. J. Boggs, Jr., county health department director who had been on leave of absence since September, has resigned the post and Dr. Bell was asked to serve temporarily by the County and State Boards of Health.

Dr. Frank B. Lee of Saunders Memorial Hospital of Florence said today he plans to use the \$34,300 Ford Foundation grant to finance the erection of a 35-bed wing to the present building. The hospital now has 77 beds.

Dr. Leo E. Kirven has recently assumed the duties of an assistant physician, Negro Men's service, State Park Division, of the South Carolina State Hospital, Dr. William S. Hall, hospital superintendent, has announced.

A native of Pinewood, Dr. Kirven is a graduate of Clemson College, and received his medical degree from the Medical College of South Carolina, Charleston, in 1954. His medical fraternity is Phi Rho Sigma.

He was a junior intern at the State Hospital in the summer of 1953, at which time he was a rising senior at the Medical College.

Following graduation from the Medical College, Dr. Kirven served an internship in the Columbia Hospital. He was engaged in private practice in Summerton, prior to joining the medical staff of the South Carolina State Hospital.

Dr. James Y. Bryson, who has recently been doing medical work at the DuPont H-Bomb plant near Aiken, has accepted an appointment as a physician at Whitten Village.

Dr. Bryson, who was graduated in 1943 from the Medical College of South Carolina has been in private practice after an extensive internship period and post-graduate work. He began his duties at Whitten Village early in December.

At the notable Marlboro County Annual Meeting on January 12, the Pee Dee Medical Association presented Dr. Kenneth M. Lynch, President of the Medical College of South Carolina, with a silver tray inscribed as follows:

DR. KENNETH M. LYNCH

With Grateful Acknowledgment For His

Contribution To Medical Progress In

South Carolina

THE PEE DEE MEDICAL ASSOCIATION

January 1956

In presenting this gift, Dr. Joseph P. Cain, representing the Pee Dee Medical Association, reviewed Dr. Lynch's career at the Medical College in complimentary phrases. In acknowledging the gift and in response to Dr. Cain's remarks, Dr. Lynch expressed his deep appreciation for the personal friendship of his colleagues in the Association and attributed the acknowledgment given to him as continued evidence of their loyalty to and support of the progressive development with which he is connected at the Medical College of South Carolina.

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## ANNOUNCEMENTS

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Dr. Henry H. Plowden announces the opening of The Physician's Clinical Laboratory, 1422 Gregg Street, Columbia, S. C. for a complete pathological and clinical pathological service to physicians and hospitals of this area.

Personal Counseling Workshop in the Care of the Alcoholic.

January 23-25, 1956

at the

Greensboro Y. W. C. A. — 314 N. Davie Street

The Mid-Atlantic Section of the International College of Surgeons is holding a regional meeting at the Greenbrier Hotel, White Sulphur Springs, West Virginia, February 13-14-15.

Eighth Annual Scientific Assembly of the American Academy of General Practice

March 19-22, Washington, D. C.

Laboratory Aids in Diagnosis of Fevers—Ivan Bennett, M. D.

Urologic Obstructive Lesions in the Young Male—Hugh J. Jewett, M. D.  
 Management of Patients with Disabling Diseases. (Live Clinic)—Josephine Buchanan, M. D.  
 Therapy of External Ocular Diseases—Irwin H. Leopold, M. D.  
 Urology in the Elderly Female—Lee Turlington, M. D.  
 Primary Wound Repair—Neal Owens, M. D.  
 Tumors and Swellings of the Neck—Grant E. Ward, M. D.  
 Visual Evidence of Vulvovaginal Diseases—Joseph A. Hepp, M. D. (Vulvar Diseases) Newlin F. Paxson, M. D. (Vaginal Diseases) Francis T. Hodges, M. D. Commentator  
 Thrombocytopenia—Its Causes and Treatment—William Harrington, M. D.  
 A Look at Tomorrow's Medicine—Francis C. Wood, M. D.  
 Disturbances and Distortions of Demeanor (Panel)—George Raines, M. D., Moderator, Mabel Ross, M. D., Robert H. Felix, M. D., Manfred S. Guttmacher, M. D.  
 Diagnosis and Treatment of Curable Heart Disease. (Live Clinic)—W. Proctor Harvey, M. D., Moderator  
 (With demonstration team from Georgetown University)  
 OB Symposium.  
 1. Preparation for Pregnancy—Robert H. Barter, M. D.  
 2. Protecting the Pregnancy—Paul A. Bowers, M. D.  
 3. Preserving the Perineum—D. Frank Kaltrider, M. D.  
 Medicine and Religion—Rev. Das Kelley Barnett  
 Atherosclerosis—Is It Reversible?—Fred Stare, M. D.  
 Intestinal Parasites—Ryle A. Radke, M. D.  
 The Changing Pattern of Disease—Leonard Scheele, M. D.  
 Cardiac Emergencies—Eugene Stead, M. D.  
 Contributions of Veterinary Medicine to Human Medicine—Henrik J. Stafseth, Ph. D.

The 1956 meeting of the American Goiter Association will be held in the Drake Hotel, Chicago, Illinois, May 3, 4, and 5, 1956.

HARVARD UNIVERSITY  
 School of Public Health  
 announces  
 PUBLIC HEALTH SCHOLARSHIPS

Scholarships for the Academic Year 1956-57 will be granted to individuals of high professional promise in awards ranging from part tuition to tuition plus a stipend, according to the qualifications and financial needs of the applicants. The Scholarship Funds are limited and are primarily intended for citizens of the

United States. In general, preference will be given to applicants under 35 years of age.

A Catalogue of the School, Admission and Scholarship applications, and further information may be obtained by writing the Secretary, Harvard School of Public Health, 55 Shattuck Street, Boston 15, Massachusetts.

Scholarship applicants must return completed admission and scholarship applications to the Harvard School of Public Health by *March 1, 1956*.

Graduate Instructional Course and the Twelfth Annual Meeting of The American College of Allergists at Hotel New Yorker, New York City.

April 15, 16, 17, 1956—Graduate Instructional Course.

April 18, 19, 20, 1956—Twelfth Annual Meeting.

THE PREMATURE INFANT  
 A Seminar

Date: February 16, 1956

I. Afternoon Session—3:00-5:00 p. m.

St. John's Episcopal Church Parish, 248 S. Dargan Street, Florence, S. C.

*Nursing Care of the Premature Infant in the Home and in the Hospital*

Participants:

Miss Myra S. Driver, R. N., Consultant Nurse South Carolina State Board of Health.

Mrs. Pearl Hinnant, R. N., Supervising Nurse Richland County Health Department.

Mrs. Anna Chunn, R. N., Supervising Nurse, Premature Nursery, Columbia Hospital.

Mrs. Helen Manor, R. N., Roper Hospital, Charleston.

*Retrofental fibroplasia*

Howard Stokes, M. D., Florence.

*Hyaline Membrane and other remarks*

W. M. Hart, M. D., Florence.

Discussion

II. Dinner—7:30 p. m.—Tobacco Land Hotel, Dillon, S. C.

The nurses are invited to have dinner (dutch) with members of the Pee Dee Medical Association. Please notify E. Bryan Michaux, M. D., Dillon, S. C., not later than February 10 if you plan to come to dinner.

III. Evening Session—*Obstetrical Aspects of Prematurity*

John R. Sosnowski, M. D., Charleston, S. C.

*Pediatric Aspects of Prematurity*

William Gamble, M. D., Charleston, S. C.

Discussion

Institutional, public health, and private duty nurses in the Pee Dee area are invited.

Sponsored by:

Pee Dee Medical Association.

The Committee on Infant Mortality of the S. C. Medical Association.

The South Carolina Heart Association will hold its annual scientific meeting in Columbia on 13 February, 1956. The sessions, beginning at 9:00 A. M. and running through to 5:15 P. M., will be held in Russell House at the University of South Carolina. The evening sessions will be held in conjunction with the Columbia Medical Society at the Columbia Hotel, beginning at 7:00 P. M.

For the information of those interested, lunch will be made available in the cafeteria of the Russell House. Anyone can be reached by phone during the meeting by calling 2-5641, Ext. 449.

PROGRAM SOUTH CAROLINA HEART  
ASSOCIATION

Monday, February 13, 1956

- 9:00—Registration and Call To Order.  
9:20—"Factors Governing The Detection of Cardiac Murmurs"—Dr. Dale Groom, Medical College, Charleston, S. C.  
9:40—"Diagnosis and Treatment of Acute Rheumatic Fever"—Dr. Lewis W. Wannamaker, The Rockefeller Institute, New York City.  
10:15—"Accomplishments and Possibilities of Cardiovascular Surgery"—Dr. Henry T. Bahnson, Johns Hopkins Medical School, Baltimore, Md.  
11:10—Intermission  
11:30—CLINICAL PATHOLOGICAL CONFERENCE—Dr. Benjamin Baker, Johns Hopkins Hospital, Baltimore, and Dr. Edward S. Cardwell, Columbia, S. C.  
12:30—Meeting of Voting Members of South Carolina Heart Association.  
Report of Activities of the Association—Dr. John Boone, Chairman, Board of Directors, South Carolina Heart Association, Charleston.  
Election of Board of Directors.  
1:00—Luncheon Recess.  
2:30—"Surgery of the Aorta"—Dr. Henry T. Bahnson.  
3:15—"Cardiac By-Pass by Means of Pump-Bubble Oxygenator"—Dr. Edward F. Parker, Associate Professor of Surgery, Medical College, Charleston, S. C.  
3:45—"Prevention of Acute Rheumatic Fever and Nephritis"—Dr. Wannamaker.  
4:30—"The Management of Hypertension"—Dr. Edgar A. Hines, Jr., The Mayo Clinic, Rochester, Minn.  
5:15—Recess.  
7:00—Reception and Dinner—Columbia Medical Society—Columbia Hotel.  
8:15—"Certain Aspects of Coronary Artery Disease"—Dr. Benjamin Baker.  
9:00—"Peripheral Vascular Disease"—Dr. Edgar Hines.

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## DEATHS

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### DR. WILLIAM H. PRICE

Dr. William H. Price, the man who was a doctor at 27, a soldier at 33, a beginning pilot at 50, died at 72.

A failing heart in a spirit that never failed took the life of the "flying doctor."

Although he was physically disqualified from the armed forces as early as 1940 because of a heart condition, he termed himself then "fit as any man" and it was not until last January he became seriously disabled.

Hospitalized for several months at that time, he recovered sufficiently to return to his home, but became once again seriously disabled some three months ago and had been practically bedfast for several weeks prior to his death.

Dr. Price crowded four careers—physician, soldier, public servant and aviation enthusiast—into a lifetime that began Sept. 9, 1883, on a plantation near Florence.

A son of Eben and Harriet Coleman Price, he was educated at The Citadel, West Point and the Medical College of South Carolina.

His career as a physician began when he entered private practice in 1910, went hand-in-hand with a career as a public servant as he put in duty as assistant city bacteriologist followed by 24 years' service in the Health Department.

As a soldier, he saw service with the Charleston Light Dragoons of the S. C. Cavalry, National Guard, in 1916 at the Mexican border. He was with the Medical Corps of the Army in World War I and served as assistant regimental surgeon of the 118th Infantry, National Guard, from the close of that engagement until the outbreak of the second world war.

Following a period of active service in World War II, he was physically discharged but continued volunteer military service as an examiner until his last illness.

His career as an aviation enthusiast began, by his own declaration, on December 17, 1903, when the Wright Brothers inaugurated "the fad." A Citadel cadet then, he was ridiculed by classmates for announcing he, too, one day would fly.

But, despite his doubting fellows, he did get around to that too—at age 50—and was to establish a reputation as South Carolina's "flying doctor."

At 71, Dr. Price was still flying fervently and frequently and had become a legend among private plane owners.

For his activities in the Breakfast Club, which he headed for seven years, and for his contributions to aviation in general, he was just four months ago presented a certificate from the S. C. Aeronautics Com-

mission. Signed by Gov. Timmerman and Charles Culbertson, commission director, the certificate and a plaque were awarded at a special meeting.

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#### DR. JAMES WILLIAM HAYNIE

Dr. James William Haynie, 52, died at his home in Belton, following a period of illness extending over the last two years.

Dr. Haynie was born February 17, 1903, in Belton, the son of the late Dr. W. R. Haynie and Mrs. Eunice Todd Haynie, both of prominent Belton and Due West families.

Dr. Haynie was educated in the Belton Schools and received his academic training at Furman University, a graduate of the class of 1923. He received his medical training and degree from Vanderbilt University in 1927. He had since practiced medicine in Honea Path and Belton.

He was a member of the First Baptist Church of Belton and of the Marshall Sunday School Class of that church. He was also a member of the Anderson County Medical Society and was interested in many civic activities in Belton.

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#### DR. LAWRENCE MANNING HOOK

Dr. Lawrence Manning Hook, 84, retired physician, died January 17, 1956 after an illness of several years.

He practiced medicine at nearby Eastover 56 years before he retired in 1950.

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#### DR. FRED L. WEBB

Dr. Fred L. Webb, 63, Clinton physician, died suddenly at his home January 10, 1956.

Dr. Webb was chief medical officer and assistant superintendent of Whitten Village, state-supported institution for mentally retarded children. A native of Georgia, Dr. Webb had lived in Clinton 25 years. During this entire period he was associated with Whitten Village.

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#### DR. SAMUEL ALSTON MORRALL

Dr. Samuel Alston Morrall of Graniteville died December 15, 1955 at an Aiken infirmary after an extended illness.

Doctor Morrall was born in Milletville, the son of the late Dr. George W. and Sallie Dunbar Morrall. He was graduated from the Medical College of South Carolina, and was a practicing physician in Trenton for a number of years before coming to Graniteville 35 years ago. He was a member of the Aiken County Medical Association, the American Medical Association, a Shriner, member of the Knights of Pythias Lodge No. 20, a member of Star Lodge 99 A.F.M., and a member of the Graniteville First Baptist Church.

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#### DR. MARTIN CROOK

Dr. Martin Crook, eye, ear and nose specialist for many years, died in an Augusta, Ga., hospital De-

cember 21, 1955.

Dr. Crook had been ill for about six months.

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#### DR. THOMAS A. MURRAH, III

Dr. Thomas A. Murrah, III, Rock Hill x-ray specialist, was killed when his station wagon was struck by a speeding automobile on December 22, 1955.

Dr. Murrah came to Rock Hill about 5 years ago to open his practice, specializing in radiology and x-ray work. A native of Union, he graduated from the College of Charleston and the Medical College of South Carolina. Dr. Murrah served his internship at Charlotte Memorial Hospital.

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## BOOK REVIEWS

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*TEXTBOOK OF ENDOCRINOLOGY.* By Robert H. Williams. Second edition. 776 pages with 173 illustrations. W. B. Saunders Co., Philadelphia, 1955.

The author's purpose in revising this book is to present the most up-to-date information concerning the diagnosis and treatment of endocrine disorders and the use of hormone therapy in non-endocrine disorders. For the sake of conciseness, controversial issues are allotted a minor place—a real boon to the medical student.

Among the contributing authors are such well recognized authorities in their particular fields as George Thorn, Edward Reifenshtein, and Lawson Wilkins.

Entire chapters have been re-written in the light of current knowledge, and completely new chapters have been added. The final chapter, dealing with the diagnosis and treatment of endocrinopathies, is unique for its simplicity and practical approach. The author deliberately warns the reader against over-enthusiasm in applying an endocrinological etiology to too many disorders, and against indiscriminate hormone therapy.

For those who wish to explore the minutiae of endocrinology, this book may prove inadequate. But for the medical student it is unsurpassed as a teaching textbook, and for the average physician it provides an up-to-date, concise storehouse of information.

J. R. Sosnowski, M. D.

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*PATHOLOGY FOR THE SURGEON.* By William Boyd, M. D. Seventh Edition, 737 pages with 547 illustrations. W. B. Saunders Co., Philadelphia—Price \$12.50.

This book is the author's previous "Surgical Pathology" renamed and rewritten to a considerable degree.

The fundamental purpose of the text is contained in the title. It is designed for the surgeon and is built on the author's firm conviction that without a firm foundation in pathology the surgeon or any other physician cannot achieve greatness. Dr. Boyd is the Duncan Hines of medical literature; to peruse his

writing is an adventure in good reading. Anyone who enjoys writing in the medical sphere that is stimulating, interesting and informative will be pleased with his latest effort. The author has the ability to combine historical anecdote, philosophical sally, literary skill, wit and scientific fact. The result is a charming style with enough literary yeast to keep dry scientific fact constantly effervescing.

The format is attractive with clear print. The references are up to date, pertinent and nicely correlated with the preceding subject matter. This is a thoroughly good book.

H. R. Pratt-Thomas, M. D.

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*DISEASES OF THE SKIN*, by George Clinton Andrews. W. B. Saunders Co., Philadelphia and London—New (4th) Edition 1954—877 pages with 777 illustrations. Price \$13.00.

This standard dermatology text in its 4th edition has been revised and brought up to date. The major changes include reclassification of various diseases, especially tumors. Greater emphasis has been placed on the histopathology of the skin in various diseases. The selected reference groupings at the end of each chapter have been increased. All of these are definite improvement over previous editions. However, there is still little attempt to evaluate methods of therapy presented for specific diseases.

This book is an excellent one for the student or practitioner who wants a text that is a good compromise between the small manual-type and the large encyclopedia-type text.

Kathleen Riley, M. D.

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*THIS PACE IS NOT KILLING US*—J. I. Rodale. Rodale Books, Inc., Emmaus, Penn. 1954. Price \$1.00.

The author believes from his reading and from his own experience that we, the people, are going too slow, not too fast, that heart disease develops as a result of inactivity and food deficiencies, and that such disease may be relieved enormously by exercise and vitamin E.

J. I. W.

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## SCISSORISMS

When you come into a House, be always in Haste, feel the Pulse and look grave: Then ask, "Was he feverish?" If they say he was, answer: "I thought as much." Next, "Did the Fit last long?" If they say it did, tell them, "It plainly appears." Write half a score Receipts, that the Apothecary may sell his Trash, and be your Friend, and that the Patient may be sicker. If this does not do, bleed him, then blister him from Head to Foot: If he dies not presently, repeat it till he does, and then tell them his Hour was come; it was a malignant Distemper; there is no opposing the Will of God; you have done all that Art could devise; and the Heir will take it all for granted,

and allow you double Fees.

If by Chance the Patient recovers, let him know his Case was desperate, but that you had a *Nostrum* which saved his Life; that it has cost you many Years Study; that it is a most Sovereign Remedy, and little of it to be had. If you happen to cast the Water, be sure to shake it well, look into it narrowly, make Faces, and shake your Head at it. Then, tho' the Patient be only troubled with Chilblains, bid him make his Peace with God, and settle his Affairs, so you gain Reputation if he lives, and are thought to have foretold it if you kill him.

To gain the Credit of being employ'd by great Men, make always some Excuse to stop at their Doors, and go in, tho' it be but to ask an impertinent Question. Get some of your trusty Friends to call you up late at Night, crying out in the Street, that all the Neighbourhood may hear, "Sir, the Duke has sent for you in all Haste. Quickly, Sir my Lady Marchioness is like to die. Make haste, Sir, the Bishop is fallen into a Fit."

Thus will you gain Esteem, become a Doctor of Fame, and have Power of Life and Death over all that believe you."

Don Francisco de Quevedo y Villegas (1580-1645)

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## ON THE TRAIL OF THE PIONEER

From 1861, when disease took a greater toll of life on Civil War battlefields than minnie balls, to the conflict in Korea, where helicopters carried blood and plasma to the front lines, the American volunteer has followed the example of his pioneer forefathers by helping his neighbors in distress.

Twenty years before the actual organization of the American Red Cross, Clara Barton and hundreds of women volunteers were doing their best to raise the level of medical service for soldiers during the War Between the States.

Time and again the Red Cross has forged ahead with practical training to benefit the health and safety of mankind. Its first aid and water safety courses are in the forefront with the newest, tested methods; its home nursing and baby care classes are recommended by physicians and nurses, many of whom volunteer time for instruction; its disaster relief methods provide practical channels for sympathetic action.

Red Cross bloodmobiles now travel the nation, some near western trails that once were red with the lost blood of our pioneers. One of the most recent developments in the Red Cross

program of service, blood donor recruitment set a remarkable record during World War II in providing blood and its derivatives to wounded soldiers — a record that is being matched by the steady procurement of donors for peacetime illness and accident.

As we move into the atomic age, the Red Cross continues to keep abreast of the times. All the skills and experience of Red Cross volunteers are ready to help those in distress in the event of an atomic disaster.

Seventy-five years of service speak for themselves. Help the Red Cross to stay on the job serving our neighbors everywhere in the proud tradition of our pioneers.

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The Physician's Writing and Reading, by  
H. E. SIGERIST in *Internat. Rec. of Med. & G. P. Clinics*, Oct. 1955.

This brings me now to the doctor's reading. I know well enough that his time is limited but he should be the more critical in the selection of his reading. I think everybody, no matter how busy he is should spend at least two hours a day reading.

What should the physician read apart from professional literature that he must read to keep abreast of a fast developing science? Before we answer the question we must raise another one. To what end do we read? I think the answer is: to learn, to improve ourselves, to enrich our life and make it more meaningful, and also to learn to express ourselves better. We do not read to kill time, because life is too short and time too precious to be killed thoughtlessly. There are moments, to be sure that we would have preferred not to have lived, an unpleasant illness or a tedious journey. These are the moments when there is time for a thriller which makes us forget ourselves, our environment, and everything, but I confess that I never developed a taste for them unless they had real literary value.

What then should the physician read? Quite generally I may say, he should read what other educated people read. There are no belleslettres for physicians and others for bankers. I think it is a very good habit to begin the day with a poem. Most busy people, and physicians are busy people, wake up in the morning when the alarm clock rings, without being quite rested. Or they have taken a tablet in order to sleep, have slept deeply but still do not feel quite normal. When they shave they remember what a heavy schedule they have ahead of them and wonder how they will survive the day. When they come down to breakfast they already feel gloomy. They open the paper and read that everybody hates everybody else. In this state of mind they go to the office and the day's drudgery begins. Why not set the alarm clock 10

minutes earlier and before getting up read a poem or two? It will resound in you through the day and may change your entire outlook. This morning I happened to have Dante Gabriel Rossetti's poems on my table.

After I had read the poem I knew that the day was going to be a good one and indeed I wrote more than five pages without inhibitions and whenever something seemed to go wrong I saw the blessed damozel with her lilies and stars, "she bowed herself and stooped Out of the circling charm; Until her bosom must have made The bar she leaned on warm. . ."

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An Editor's Prejudices, by  
H. CLEGG in *Internat. Rec. of Med. & G. P. Clinics*, Oct. 1955.

The doctor who sits down at his desk to compose an article must, I think, be assailed by horrible doubts and fears. As a novice he tends to think that some rather unusual qualities are called for in this mode of expression. He sees his paper as something that may one day appear in the "literature" on the subject. That awful word literature! He becomes most self-conscious of himself as a writer of "Prose", spelt with a capital "P." Too often he thinks that good prose consists of long words strung together in long sentences. He writes: "It is my carefully considered opinion that," instead of "I consider" or "I believe," "All the available accumulated evidence goes to demonstrate that. . .", instead of "The evidence suggests. ." And the author can give the evidence in his references. Then there is medical jargon. "The patient had no pathology." One might as well say "The patient had plenty of physiology." "He was a strangulated hernia." "She was a carcinoma breast." Such things are said in the wards of hospitals, and are a convenience to the user. Every profession and trade has its own forms of expression, but doctors seem reluctant to distinguish between the spoken and the written language. At least this is partly the explanation. In these days of television, the cinema, the radio, and the illustrated magazine, reading and writing are at a discount. He who runs may read, it has been said. And he who reads may write, and how he writes will depend much upon what he reads. The doctor today has to read so many journals to keep up to date that he has little time left to cultivate the garden of his mind, which in consequence becomes cluttered up with verbal weeds.

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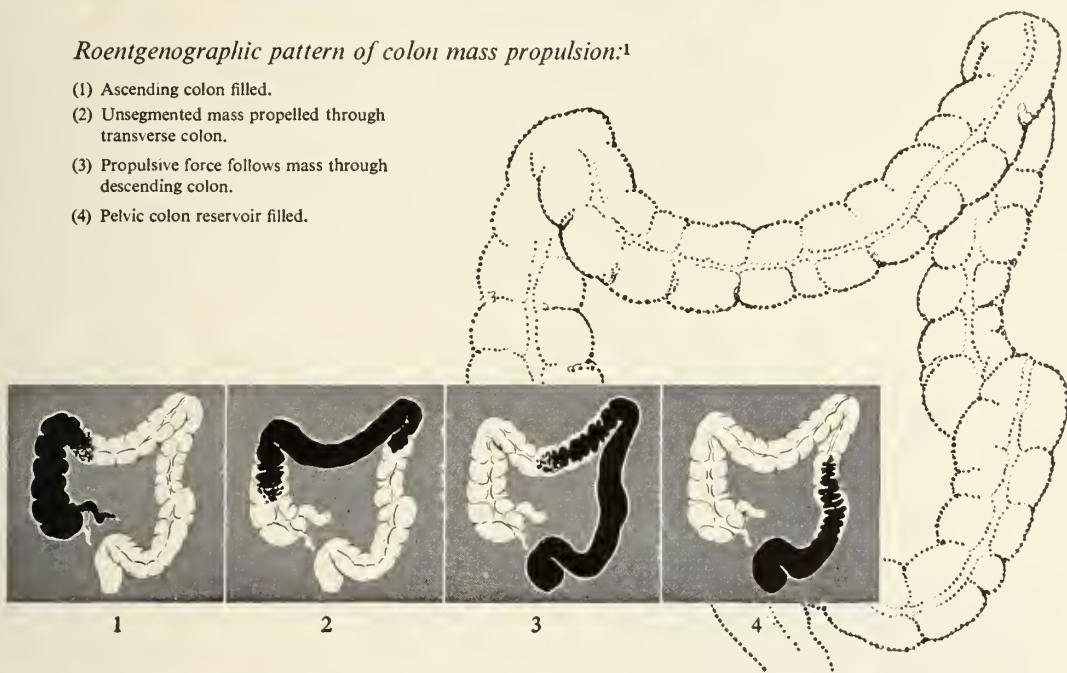
#### UNCLE WILFRED

Uncle Wilfred has invented a new cigarette holder which, though it has not yet received the endorsement of Alton Ochsner, promises to be a tremendous success. It includes a removable chamber through which the smoke passes on its way from the cigarette to the smoker's lungs. In the chamber he places a mouse. When the mouse develops cancer he takes it out, throws it away, and puts in a new one.

## SMOOTHAGE ACTION IN CONSTIPATION

### *Roentgenographic pattern of colon mass propulsion:*<sup>1</sup>

- (1) Ascending colon filled.
- (2) Unsegmented mass propelled through transverse colon.
- (3) Propulsive force follows mass through descending colon.
- (4) Pelvic colon reservoir filled.



## Reestablishing Bowel Reflexes with Metamucil®

*Nervous fatigue, tension, injudicious diet, failure to establish regularity, too little exercise, excessive use of cathartics—all factors which contribute to constipation.*<sup>2</sup>

Sufficient bulk and sufficient fluid form the basic rationale of treatment of constipation. Metamucil (the mucilloid of *Plantago ovata*) produces a bland, smooth bulk when mixed with the intestinal contents. This bulk, through its mass alone, stimulates the peristaltic reflex and thus initiates the desire to evacuate, even in patients in whom postoperative hesitancy exists.

Correction of constipation logically, therefore, lies in the suitable adjustment of such factors as nervous fatigue and tension, improper intake of fluid, improper dietary habits, failure to respond to the call to stool, lack of physical exercise and abuse of the intestinal tract through excessive use of laxatives.<sup>2</sup>

The characteristics of Metamucil permit the correction of most of these factors: it provides bulk; it demands adequate intake of fluids (one glass with Metamucil powder, one glass after each dose); it increases the physiologic demand to evacuate; and

it does not establish a laxative "habit." Metamucil, in addition, is inert, and also nonirritating and non-allergenic.

The average adult dose is one rounded teaspoonful of Metamucil powder in a glass of cool water, milk or fruit juice, followed by an additional glass of fluid if indicated.

Metamucil is the highly refined mucilloid of *Plantago ovata* (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent. It is supplied in containers of one pound—also four ounces and eight ounces. G. D. Searle & Co., Research in the Service of Medicine.

1. Best, C. H., and Taylor, N. B.: *The Physiological Basis of Medical Practice: A Text in Applied Physiology*, ed. 5, Baltimore, The Williams & Wilkins Company, 1950, pp. 579-583.

2. Barger, J. A.: *A Method of Improving Function of the Bowel*, *Gastroenterology* 13:275 (Oct.) 1949.

SEARLE

## WOMAN'S AUXILIARY SOUTH CAROLINA MEDICAL ASSOCIATION

President: Mrs. C. R. May, Jr., Bennettsville, S. C.

Publicity Secretary: Mrs. N. D. Ellis, Florence, S. C.

### CONVENTION—WHAT IS IT?

Mrs. Charles R. May, Jr., President

CONVENTION—is the time in which the year's work passes in review as presented by Officers, Committee Chairmen, and County Presidents.

CONVENTION—is the time in which new plans for the future growth of the Auxiliary are formulated.

CONVENTION—is the time in which we increase our knowledge of how to best serve the South Carolina Medical Association, as well as each other!

CONVENTION—is a time of inspiration: when we listen to the splendid accomplishments of County Auxiliaries and meet women who are capable, energetic, and dynamic as well as dedicated to a life of service.

CONVENTION—is a time to renew old friendships and to make wonderfully new ones.

CONVENTION—is the time for fellowship and the sharing of ideas, problems, and solutions.

CONVENTION—is the time to realize the opportunities for service to our communities, families and humanity as offered by the program of the Woman's Auxiliary to the South Carolina Medical Association and to the American Medical Association.

CONVENTION TIME IS—May 15, 16, and 17, 1956, Ocean Forest Hotel, Myrtle Beach, S. C. Bring your husband and children—we'll be looking for YOU!!



*She still needs  
YOUR HELP*

*Join the*  
**MARCH OF DIMES**  
*January 3 to 31*

Pauling estimated a few years ago that there are about 100,000 different kinds of proteins in the human body. In defining their varied specific effects on biological activity, only beginnings have been made, for instance, in defining the influence of their fine structure on their immunological activity. Although various proteins have been separated in relatively pure form from their protoplasmic *milieu* and have been analyzed by chemical methods, the synthesis of proteins outside the living cell remains a persistent challenge. Though the chemist is able to break them down, he is, so far as their synthesis is concerned, in the position of a skilled mechanic who is confronted with the task of reconstructing an airplane from its wreckage, but whose previous acquaintance with airplanes consists merely in having seen them momentarily in trackless flight against the sky.

### ESTES SURGICAL SUPPLY COMPANY

Phone WALnut 1700-1701

56 Auburn Avenue

ATLANTA, GA.

# The Journal

of the

## South Carolina Medical Association

VOLUME LII

March, 1956

NUMBER 3

### RECENT ADVANCES IN MEDICINE \*

HUGH SMITH, M. D.

Greenville, S. C.

About 350 B. C. Aristotle wrote to Alexander, who was preparing for one of his great military ventures, "Do not let your men drink out of stagnant pools—Athenians, city born, know no better—and when you carry water on the desert marches, it should be first boiled to prevent its getting sour." It was not until 100 years ago, 2150 years after Aristotle, that the theory of 'Contagium Animatum' advanced by Henle and others was confirmed by Pasteur and Koch.

I graduated in medicine in 1918. My baptism in practice began with that horrible pandemic of influenza just three months later. I probably signed more death certificates that fall than in any five year period subsequently.

In World War I and for fifteen years after our mortality from pneumonia and meningitis was around 40%. In World War II the mortality from these two ancient killers was about 4%, a dramatic change in less than twenty-five years. In this short period of time—and all of it in my medical practice years, some very wonderful things have come to pass.

1. In 1920 Banting and Best isolated Insulin and made it practical within three years.

2. In 1924 Graham and Cole found a method of concentrating iodine in the gall bladder and cholecystography became practical.

Shortly after it became possible to examine the urinary tract by the x-ray and to do bronchographic and intraspinal x-ray studies.

3. In 1926, as a result of Whipple's study of anemia, Minot and Murphy applying his ob-

servations tried liver in the treatment of pernicious anemia.

4. In 1935 the Germans made Prontosil available for various septic coccal infections. Shortly afterwards the French uncovered the chemical formula and sulfanilamide became rapidly available and also cheap. In rapid sequence various sulfonamides were prepared and studied and their effectiveness proven.

5. In 1937 nicotinic acid was found to cure black tongue of dogs. Oddly enough nicotinic acid was the first vitamin to be isolated in pure chemical form. It had been made from nicotine in 1867. It was isolated from rice polishings again in 1911 by Funk, who was looking for a cure for beri-beri. Yet it was not found useful until 1937 when its specific effect in pellagra came from its first use as a treatment for black tongue in dogs.

6. In 1941 penicillin was found largely by accident, or rather by the keen recognition of the possibilities seen in the accidental contamination of some cultures. In 1943 its production commercially began and by 1944 we were using it in World War II.

Antibiotic therapy began with penicillin and yet for several years before Rene DuBois had been working with gramicidin, which was probably the first real study of this concept of therapy. The rapid sequence of new antibiotics is only mentioned. All of these developments have come in my professional life. Yet none is recent in terms of today. Many of you cannot conceive of the practice of medicine without them. You will wonder how we got along without them. I do too. Yet these things

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all came to pass within a short period of twenty-five years—between the last two great World Wars.

Great things are still happening and it is most likely that some of you twenty-five years hence will have occasion to review the great advances yet to come but which will then be as commonplace to your audience as these things are to you. As new things come you might well remember Pope's "Be not the first by whom the new is tried, nor yet the last to lay the old aside."

#### The corticoids.

There has accumulated a vast literature on the subject of the corticoids and ACTH in recent years. One would hesitate to review such a topic as part of a talk and for that reason I only want to mention briefly some of the more recent developments. You recall that when first developed they were hailed as the spectacular cure for chronic rheumatoid arthritis and other distressing and crippling diseases. There followed the inevitable backswing from such over-enthusiasm, as the side effects and ill results became better known. Now with more experience and increasing knowledge of their usefulness one feels more confident with them.

The first improvement in the study of these drugs came with the development of hydrocortisone, which was more potent and caused somewhat fewer side effects than the original cortisone. More recently and due to continued research with the organic chemical structure there has appeared prednisone and prednisolone. The one most favorably reported in recent studies is prednisone (Meticorten) which appears to have all the virtues and fewer of the faults of cortisone and hydrocortisone. A number of excellent reports are now available and they are practically unanimous in the opinion that prednisone is four to eight times as active, mg. for mg., as cortisone or hydrocortisone. In its anti-rheumatic effect it surpasses the older steroids. Whereas with cortisone and hydrocortisone we had the problem of sodium retention and potassium loss to deal with—these electrolytes

show very little disturbance with the ordinary dosage now used of prednisone. Equally as good results have been reported in the treatment of various dermatoses and in asthma. It is also better tolerated by diabetics. One man doing a great deal of work with this drug has told me that he thought prednisone was just as likely to produce or activate peptic ulcers as the older preparations. One author has mentioned the development of symptoms of angina pectoris in a few patients while taking Meticorten. I have had one such experience this summer. However, the drug has proven of great value to me in my work and so far I am quite pleased with the good effects and have been equally pleased with the lack of ill effects in my limited experience.

There has recently appeared some very interesting reports on other analogues of Cortisone, both natural and synthetic. 9-a fluoro-hydrocortisone acetate has been found to lessen rheumatic symptoms but to produce troublesome sodium retention and potassium loss. While therefore it is not too useful orally, it has proven useful in the topical treatment of certain dermatoses.

Only quite recently a natural steroid obtained from the beef adrenal cortex has been isolated. Such a steroid was known to exist and had been called Electrocortin. Now that it has been isolated it has been named aldosterone because it has an aldehyde group at C-18. Conn has recently described a case he believed to represent primary aldosteronism. The clinical features include periodic episodes of severe muscular weakness, paresthesias, intermittent tetany, hypertension, polyuria, polydipsia and strangely, no edema. The resemblance to familial periodic paralysis is apparent. In his patient an adrenal cortical tumor was removed with relief of symptoms. Later he was able to reproduce the symptoms after recovery with small doses of aldosterone. Conn suggests that potassium losing nephritis and hypochloremic alkalosis reported by other observers might be due to hyperaldosteronism.

A new clinical syndrome is thus presented and great credit is due to Conn for his careful clinical and laboratory evaluation of a most

interesting problem. The adrenal gland is certainly a complex organ which occupies a critical position in the chain of endocrine physiology.

In June 1955 in the *Lancet* Llaurodo has made an interesting report of his observations that there is an appreciable increase in the urinary excretion of Electro cortin, or aldosterone, in the immediate postoperative stage following surgical trauma. This offers an explanation for the known potassium loss and sodium retention occurring after surgical trauma. This steroid is said to be 20-100 times as potent as DOCA in terms of sodium retention and potassium excretion.

Aldosterone is as yet available only in minute quantity. When it becomes available one would expect it to prove of great benefit in cases of adrenocortical insufficiency.

Ward and colleagues of the Mayo Clinic have recently expressed the optimistic view that the development of these newer steroids, natural and synthetic, with differing characteristics and potencies strengthen the conviction that superior compounds will be developed for the control of rheumatoid arthritis and certain other conditions. So many things have come to pass through chemical research in recent years that I am prepared to believe anything possible.

#### Anticoagulant therapy.

It was in 1946 that the American Heart Association appointed a committee on anticoagulants. Within two years a carefully recorded study of more than 1000 cases of myocardial infarction was accumulated. A preliminary report on these cases in 1948 revealed some very interesting statistics. In those days only heparin and dicumarol were available. The preliminary report established beyond doubt that both the incidence of thrombo-embolic complication and the mortality in the group treated with anticoagulants were less than in the control group. Continued experience with anticoagulants has confirmed these initial findings and now the use of such drugs has become generally accepted. In more recent years there has been a tendency to withhold anti-

coagulant therapy in the so-called mild cases of myocardial infarction. In the last few years other drugs capable of reducing the prothrombin level have become available and now the choice is largely a matter of which drug the physician prefers to obtain essentially the same result. Probably dicumarol is still the one most generally used. Tromexan and Hedulin are now widely used also. Dicumarol effect is more prolonged and, therefore, perhaps more hazardous. Tromexan will initiate a therapeutic prothrombin level more rapidly and the low level will return to safe levels more quickly than with dicumarol. The same is true of Hedulin. This latter drug is our particular choice, perhaps because we have used it consistently for the last two years and are more familiar with its effect. I have had no experience with Warfarin or Dipaxin. It is a trite remark to this audience that expert laboratory control is essential for the safe and intelligent use of any anticoagulant. Even under apparently ideal situations an occasional unhappy bleeding occurs which can be most disturbing. Now that we have vitamin K-1 oxide available and have found it effective in reversing rather promptly the low prothrombin level, we no longer fear these complications as much as we once did.

In general, with adequate laboratory control (a prothrombin time of 12-16 seconds for the control) one can feel fairly safe with the patient's prothrombin time of 25-35 seconds (2 - 2½ times that of the control).

There are certain conditions where anticoagulants are best not used. Some of these are 1, liver damage with prothrombin deficiency; 2, vitamin C deficiency; 3, renal insufficiency; 4, blood dyscrasia with bleeding tendencies; 5, late pregnancy; 6, ulcerations of open wounds; 7, recent operations on the brain or spinal cord; and 8, subacute bacterial endocarditis because of possible cerebral embolization or hemorrhage.

One should be very hesitant to do much deep intramuscular therapy with a low prothrombin level. There is real danger of retroperitoneal hemorrhage in such cases when a lumbar sympathetic block is attempted or

where paracentesis of the pericardium might be attempted. It is generally stated that the incidence of hemopericardium and of rupture of the heart in myocardial infarction with anti-coagulant therapy is perhaps twice that in the cases that have not received such therapy. An inquiry to Dr. Dreskin revealed the fact that he did not recall a single rupture of the pericardium that could be attributed to anti-coagulant therapy occurring in this hospital the last few years. There has been one case of pericardial hemorrhage where this might have been a factor.

#### Pressor substances in shock.

The development of circulatory collapse producing shock in acute myocardial infarction is a grave complication. One might arbitrarily select as dangerous a systolic blood pressure of 80 or less in previously normotensive patients, and of 100 or less in known hypertensive cases. If this low level persists for an hour or longer shock will ensue. The mortality in such cases without specific antishock therapy is quite high. Griffith and colleagues reported in November 1953 a series of 816 consecutive cases of myocardial infarction, of which 161 (20%) developed shock. In review of this series they found a mortality of 80% in those cases where no specific antishock measures were used. These cases had been treated by the usual routine measures including morphine, oxygen, anticoagulants, quinidine and digitalis. They then reported their experience with three of the newer sympathomimetic amines, nor-epinephrine, Methoxamine and isopropyl-nor-epinephrine, in a series of 105 similar cases of shock complicating myocardial infarction. Nor-epinephrine is readily available as Levophed. Its proper use controlled shock in 17 of 30 cases. Methoxamine controlled shock in 10 of 49 cases and isopropyl-nor-epinephrine controlled 7 of 26 cases.

Comparison of the effects of these pressor amines shows that in patients with an intact conduction system Levophed and Methoxamine raise blood pressure while isopropyl-nor-epinephrine does not. Epinephrine and isopropyl-nor-epinephrine increase the heart rate

while nor-epinephrine has no effect on the rate and Methoxamine slows the rate. This becomes important in cases of complete A-V disassociation with shock. Here isopropyl-nor-epinephrine (Isuprel) will both increase the heart rate and raise the blood pressure, thereby often preventing Adams-Stokes attacks and controlling shock also.

In the usual case with an intact conduction system, nor-epinephrine is the choice. It is given in continuous drip by adding a 4 ml. ampule of 0.2% Levophed to 500 ml. of 5% glucose and given slowly intravenously with a drop rate of 15-30 per minute. This dose rate is so regulated to maintain a systolic blood pressure of 90-100 if possible. It can be continued for several days if necessary. If Levophed or Isuprel are given for any length of time it would be well to give quinidine concurrently. The Levophed and Isuprel act primarily on the arterioles but it appears that significant arrhythmia and ectopic rhythms are more likely to occur in cases of such severity that the pressor drugs are necessary.

#### Serum Glutamic Oxalacetic-Transaminase.

A relatively simple and reliable laboratory test for the earlier diagnosis of acute myocardial infarction has been reported recently. This test is based on the laboratory evidence of a rapid and pronounced increase of the enzyme SGO-T in the serum of animals with experimentally produced acute myocardial infarctions. This test becomes positive in a matter of hours and therefore may precede ECG, temperature, leucocytosis and sedimentation rate changes a day or two. Should this test become commonly available, another assist from the laboratory in the early confirmation of actual myocardial infarction will be indeed welcome.

The evidence thus far available indicates that there is no increase of SGO-T in myocardial ischemia, and that it is only released in excess from areas of actual muscle necrosis.

This enzyme is also found in liver and skeletal muscles and the test is therefore not specific for myocardial infarction. However in the absence of quite recent muscle injury, either by surgery or trauma, or in the absence of diffuse

liver disease, it is not likely to be confusing. In a typical case of myocardial infarction the SGO-T level rises rapidly to a peak level within 36 hours and then tapers off gradually to a normal range in 4 to 6 days.

A preliminary report on this new development is found in the August 1955 issue of 'Circulation' and will prove interesting reading to anyone who cares to review the subject.

#### Selection of cases for cardiovascular surgery.

Surgical procedures and techniques have developed rapidly in the field of rheumatic valvular heart disease, in congenital heart disease and in obliterative atherosclerotic disease of the abdominal aorta and its major divisions. It has become increasingly important to the clinician and merits some review of its possibilities here. I will not attempt to discuss the selection of congenital heart disease for surgery since this has become a highly specialized procedure and, as yet, requires special studies in diagnostic clinics equipped for this purpose.

In rheumatic heart disease the most important single lesion responsive to surgery is mitral stenosis. There has now accumulated a large experience with mitral valvuloplasty and one can begin to fairly evaluate the procedure. Ellis and Harken in a recent issue of the *Annals of Internal Medicine* have reported a summary of their experience with 500 such operations. Of course pure mitral stenosis is comparatively rare and there are usually other factors present in rheumatic heart disease. Even the most satisfactory procedure available does not restore the valve to a normal state. The operation is a blind procedure and the experience and skill of the surgeon are vitally important when undertaking this operation. In attempting to select patients for this operation they have followed their original classification and continue to divide the patients into four groups.

In group one are patients without significant symptoms who have only the murmur of mitral stenosis. These people have good exercise tolerance and on physical examination reveal no significant cardiac enlargement and they are quite comfortable in the ordinary activity

of their daily lives. This group does not need and should not have mitral surgery. They might well live normally active lives without more trouble from their hearts.

In group two we would put those patients with some functional impairment, usually dyspnea on moderate activity, which is not progressive. If this individual finds his limitations not too annoying and his symptoms are not progressing, he can postpone surgery with the hope that his lesion will not progress. If his limitations are unacceptable or his symptoms begin to increase he can face surgery at this stage with minimal risk. In such a case surgery should be considered with the factors mentioned.

In group three are patients with progressing symptoms, dyspnea, cough, episodes of pulmonary edema or repeated attacks of acute dyspnea. This group is the one in urgent need of surgery. Their course otherwise is progressively downhill and ultimate chronic failure will supervene. If this is allowed to happen the chance of a good surgical result may be lost. The total mortality in this group reported by Harken has decreased from 14% in the first 100 such cases to 3% in the last 100 such cases. In a subsequent series of 200 group three cases the mortality now reported is only one case. This certainly confirms what was stated earlier, that experience and skill are very important if the best surgical results are obtained.

In group four are put the cases in chronic congestive failure and which usually show chronic auricular fibrillation, perhaps have a history of embolic complication and are properly classified as cardiac invalids. There were 145 out of the 500 cases operated in this group. Surgery here is of course hazardous and the mortality even now with more experience and improved operative skill still runs about 25%.

In evaluating results in this series of patients Ellis and Harken arrive at some very interesting statistics. Divided on an age basis only they report,

Of patients under 40—85% improvement.

Of patients over 40—70% improved.

Of those with normal sinus rhythm—87% improved.

Of those with auricular fibrillation—70% improved.

Of those without calcified valves—81% improved.

Of those with calcified valves—66% improved.

Of those without mitral insufficiency—82% improved.

Of those with moderate to marked mitral insufficiency—63% improved.

In a follow-up report on these 500 cases averaging twenty-two months, they claim that 78% of patients surviving operations showed significant and usually persistent improvement.

In review then we find that certain factors lead to poorer results.

- 1, Age over 40.
- 2, Auricular fibrillation.
- 3, Associated aortic valve disease.
- 4, Associated mitral insufficiency.
- 5, Calcification of the mitral valve.
- 6, Surgical failure to obtain an opening of at least 2.5 square cm.

The poor results are directly proportionate to the number of adverse factors listed present at the time of surgery.

In considering surgical intervention for atheromatous obstructions in the larger arteries of the abdomen and lower extremities one is faced with the problem of adequate pre-operative diagnosis. While Leriche first described the syndrome which now carries his name in 1923 and again in 1940, it was not given much surgical consideration until the last few years. Now with relatively safe methods of intra-arterial radiography available we can approach more readily this problem and with a reasonable degree of optimism. An abdominal aortogram will reveal the caliber and integrity or impairment of the lower abdominal aorta and common iliacs. Intrafemoral injections will reveal the integrity or damage of the femorals. Thus the surgeon can decide whether to and where to operate with the best chance of success.

Leriche's syndrome is usually manifested first

by increasing fatigue in the lower extremities and then by pain and claudication in the low back or thighs on much walking, and by impotence. This latter development is more often the presenting complaint and the one that makes most patients willing to undergo surgery. It is usually characterized by insidious thrombosis of the abdominal aorta above or at the level of its bifurcation.

There are two surgical procedures now available.

1, If the thrombosis is not too extensive an endarterectomy with removal of the obstructing thrombus can sometimes be successfully done.

2, If the degree of involvement is more extensive and the obstruction more complete, resection of the involved segment and its replacement with a proper arterial graft is being done more and more often. There is considerable experimental work being done with plastic mesh grafts that may become quite practical and eventually prove thoroughly satisfactory for this operation.

In patients with severely impaired circulation in the lower extremities who suffer a great deal with cramps and claudications, a similar approach to the diagnosis and correction by surgical measures is even more feasible and less hazardous. To any of you particularly interested in the technique of femoral arteriography I would refer you to an excellent article from the Cleveland Clinic Foundation in the *Journal of the American Medical Association* for August 27, 1955.

The treatment of hypertension:

Essential hypertension does not apparently have a specific etiology. It is likely a result in a susceptible individual of one or several factors. These are perhaps familial, humoral, functional and renal influences. The old adage "To prevent hypertension choose your grandparents carefully" has some modicum of truth.

Such humoral mechanism as the renin—angiotonin system, the vasoexcitor material and the sodium retaining influence of adrenal cortical hormones have all been studied extensively. Until recent years therapy has been

entirely sedative and symptomatic. Some ten or twelve years ago we became intensely interested in the surgical approach through more or less extensive sympathectomies and following that, the low sodium and rice diet of Kempner became quite popular. While some results were obtained, this stimulated more intensive research and resulted in the newer sympatholytic compounds, with which a so-called medical sympathectomy could be done.

Typically essentially hypertension starts as a labile pressure with occasional elevations which occur gradually more often and finally remain persistent. Women are twice as prone to it and tolerate it twice as well. The usual case seems to run about twenty years and will terminate in the mid-fifties with a cerebral accident, cardiac failure or, less often, renal failure. The typical hypertensive is an anxious and compulsive individual who is often a perfectionist as well. Whether or not essential hypertension and cardiovascular-renal disease are separate or interdependent diseases is a moot point. It seems certain that you may have one without the other for a while. Certainly either will aggravate the other and both do tend to occur in the same patient. It would appear that hypertension is primarily a functional disturbance and therefore reversible, whereas organic vascular disease is structural and reversible slowly if at all. If this be true then every effort should be made to reduce the early hypertension in an effort to forestall organic vascular change as long as possible. We now have drugs of proven value and much is known about their use. No doubt more effective drugs and procedures will appear in the near future. So great is progress of research today that no one would dare consider anything impossible.

Recently Wilkins of Boston has reviewed the actions of several drugs known to produce hypotension and has suggested a therapeutic program which offers a reasonable expectation of benefit in a fair proportion of cases of essential hypertension.

First, *Rauwolfia serpentina* derivatives are the mildest of these drugs. Their action is slow and gentle and its side effects are essentially

harmless. *Rauwolfia* has been known and used in India for centuries as a tranquilizing agent, especially in psychiatry. Its bradycardic hypotensive effects were first noted rather incidentally in such cases.

*Rauwolfia* is available in three forms.

- A. 1. Crude whole root powder, such as *Rau-dixin*, with an average dose of 100 mg. two to four times a day.
2. *Alseroxylon* fraction, 2-4 mg. q.i.d. and
3. *Reserpine*, a pure alkaloid, with an average dose of 0.1-0.25 mg. q.i.d.
- B. *Actions*—Sedative, bradycardic, mild hypotensive, increased bowel motility and probably a central adrenergic blocking effect.
- C. *Undesirable side effects*. Nasal stuffiness, dreams, depressions and weight gain.

Second, *Veratrum*.

- A. *Forms and dosage*.
  1. Crude root powder, seldom used.
  2. *Alkavervir* fraction—2-4 mg. q.i.d.
  3. *Protoveratrine*—pure alkaloid—0.25-0.75 mg. q.i.d.
- B. *Actions*. These are
  1. Central neurogenic vaso-dilator.
  2. Vago-bradycardic effect.
- C. *Undesirable side effects*.
  1. Nausea and vomiting.
  2. Arrhythmias.
  3. Collapse.

Third, *Hydralazine*.

- A. *Forms and dosage*.  
*Hydralazine hydrochloride*.  
Dosage—10-150 mg. q.i.d.
- B. *Actions*. These are central and peripheral adrenergic blocking, and a general and renal vaso-dilator effect.
- C. *Undesirable side effects*. Cardiac stimulant causing tachycardia, palpitation, and in coronary disease, angina pectoris.
  2. Causes headaches.
  3. May cause fever, arthritis, rashes and collagen type disease that fortunately are reversible when the drug is discontinued.

Fourth, *Hexamethonium*.

- A. *Forms and dosage*. *Hexamethonium chloride*. 25-500 mg. q.i.d.

B. *Action.* Total autonomic ganglionic blockade, hypotension, especially orthostatic.

C. *Undesirable side effects.* Obstipation, postural hypotension, weakness, loss of visual accommodation, atony of the urinary bladder, impotence, and vasomotor collapse.

The other autonomic ganglionic blocking drugs, such as Ansolysen and Dibenzaline have essentially similar effects.

In using these drugs perhaps it is best to always start with the simplest and mildest one. The ultimate effect of Rauwolfia derivatives should be obtained and, if ineffective, you might add one of the others at a time and in sequence until the best result is obtained. Both the Rauwolfia derivatives and the Veratrum derivatives are bradycardic and are at times synergistic. The relative range between an effective and a toxic dose of the Veratrum drugs is rather close. They are neurogenic vaso-dilators operating reflexly through the central nervous system to lower the blood pressure and slow the heart rate. They do not cause significant postural hypotension nor block vasomotor response. The most objectionable side effect is its anorectic and emetic tendency in dosage quite close to the useful hypotensive one. It can cause cardiac arrhythmia, premature ventricular contractions especially, and may cause considerable palpitation when carried to an effective dose level. Atropine will block such side effects quite often should they occur. It appears that the combined use of the Rauwolfia derivatives and Veratrum derivatives is more useful than either one alone.

Hydralazine is a synthetic chemical having renal vaso-dilating and hypotensive properties. It causes some adrenergic blocking but seldom causes postural hypotension. It causes rather frequently some nasal stuffiness, tachycardia and headaches. In the presence of coronary heart disease it may excite angina pectoris. Since Hydralazine is a hydrazine derivative it might be expected to have the toxic effect of synthetic chemicals containing the benzene ring. This must occur infrequently since only one or two cases of pancytopenia have been reported thus far. However, it does cause more

often some unhappy side effects, such as fever, rashes, and arthritis and a brawny type of dependent edema. More rarely but still occurring where the daily dosage is 400 mg. or more, a lupus erythematosus-like disease has occurred. In the development of any such side effects the drug should be promptly discontinued and not given again to that patient. Thus far, so far as I know, the collagen-like diseases have all cleared in a reasonable period of time following discontinuance of the drug.

Hexamethonium is perhaps the most difficult one of these drugs to use successfully. It is a total ganglionic blocking drug and an adequate dosage is capable of inhibiting all autonomic reflexes—adrenergic or cholinergic. These side effects can be quite troublesome and must be anticipated and properly treated. It is a powerful hypotensive agent with varying response from patient to patient and in the same patient from time to time. Therefore, its use should be begun cautiously and in small doses and on a four hour daily schedule. This drug should always be given on an empty stomach, preferably one-half hour before meals and before bedtime. A starting dose of 125 mg. q. i. d. is suggested and the patient should be carefully observed for at least two hours after the initial dose. The blood pressure should be checked at 15-30 minute intervals in both the sitting and standing positions. The same schedule should be repeated with each increase of the dose which might be done every second or third day until a definite hypotensive effect is obtained. The symptoms of postural hypotension must be made clear to the patient so that they might learn to sit down or lie down when such symptoms develop. The dose should be just a little less than the one that will cause symptomatic postural hypotension. Constipation is a frequent problem and its development interferes with the absorption and effectiveness of Methonium. The use of Prosigmine, Urecholine and of actual laxatives is frequently necessary for the most effective use of the Methonium compounds. Again the combined use of Rauwolfia and Methonium seems to provide a more stabile therapeutic program than either drug alone.

The same general remarks can be made

about the use of pentapyrrolidinium. It has quite similar action and the same theoretical advantages. Its dosage is best begun at 20 mg. q. i. d. and again given before the meals. The dose is slowly increased until postural hypotension is established and then the therapeutic dose is often 20 mg. below the dose required to produce postural hypotension.

#### Serotonin.

A new clinical syndrome due to carcinoid with metastases to the liver (argentaffinoma) has been recognized and reported from several sources quite recently. This syndrome is principally manifested by peculiar cutaneous flushes, chronic diarrhea, respiratory distress, and valvular disease, usually the right side, of the heart. This Alice-in-Wonderland sort of syndrome has been described and a thoroughly studied case reported by Bean and colleagues from Iowa State University in *'Circulation'* of July 1955. Thorsen and colleagues reported this syndrome in the *American Heart Journal* of June 1954. They suggested that carcinoid tumors might secrete large amounts of 5-hydroxy-tryptamine, (Serotonin), that conceivably could induce the manifestations of this syndrome. The title of their paper actually describes the clinical picture—"Malignant Carcinoid of the Small Intestine with Metastases to the Liver, Valvular Disease of the Right Side of the Heart, (pulmonary stenosis and tricuspid regurgitation), Peripheral Vasomotor Symptoms, Broncho-constriction, and an unusual type of Cyanosis".

In the *J.A.M.A.* for September 24, 1955, in the section 'Correspondence', a group of investigators at the National Institute of Health, Bethesda, Maryland, have mentioned their experience with 5 such cases within the past few months. They describe the cutaneous flushes as episodic erythema, patchy cyanosis, and blanching. These can be confused with vasomotor instability due to other causes. In this syndrome these changes are pronounced and occur with great rapidity. Bean refers to them as an 'Aurora Borealis' sort of thing. The diarrhea is ordinarily simply a matter of several stools a day, of no specific type, and its chronicity without apparent cause is perhaps sug-

gestive. With metastases of this ordinarily low grade tumor to the liver the other symptoms appear. It is believed that sudden release of large amounts of Serotonin to the right side of the heart from the liver causes the flushes and broncho-constriction and ultimately damages the right heart valves. Hepatomegaly may occur and may be considered primary hepatic disease, or in the presence of valvular heart disease, may be attributed to congestive failure.

Perhaps at this very time we are approaching the most startling new development in all medical history. In December 1954 at an American Psychiatric Association Panel discussion the following was concluded. "The psychotic state produced by lysergic acid diethylamide was felt to be not identical with that found in schizophrenia but there were sufficient similarities to suggest that a biochemical factor is involved in schizophrenia."

It has been known for centuries that eating bread made from ergot-infested grain would produce a crazed reaction. There are histories of such epidemics where the whole populace of a community has been driven mad in Europe and in Russia. Ten years ago, a chemist named Hoffman, quite accidentally found himself experiencing a peculiar restlessness and dizziness while working with d-lysergic acid, an active principle of ergot. He went home and to bed and found himself in "a not unpleasant state of drunkenness characterized by an extremely stimulating fantasy". This lasted 2 hours. To check this effect he took deliberately next day 250 micrograms of the new salt and he experienced "even more extraordinary symptoms than before".

Since then the hallucinating and depersonalizing effects of d-lysergic acid diethylamide has been studied and reported by many investigators. LSD and Mescaline (an active principle of the American Indian Peyotl), produce symptoms closely resembling schizophrenia. These are potent drugs and as little as 1 millionth of a gram to the kilogram will produce this effect. This minute amount of drug is of the order of vitamins and hormones and suggests a highly selective action on the central nervous system.

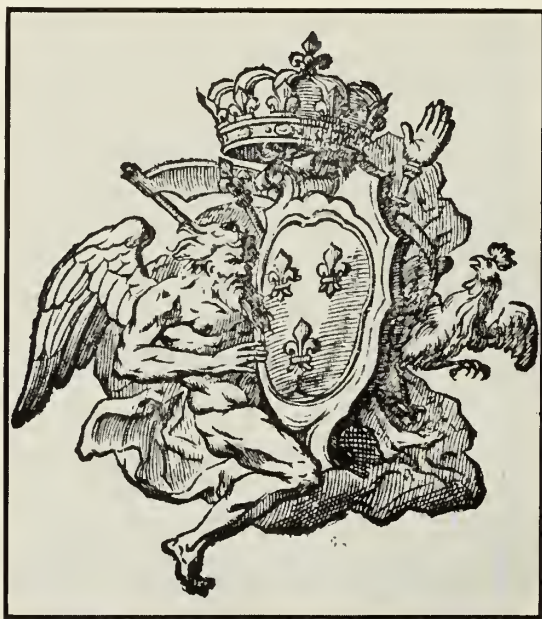
Further study has revealed that five hallucinogens, all plant alkaloids, Mescaline, LSD, ibogaine, harmine, and hashish are much alike chemically. The first four of these contain an indole or indole-like nucleus. Hashish is an indefinite structure as yet.

These alkaloids are adrenergic and in some manner effect the adrenaline cycle. An oxidized product of Adrenaline, Adrenochrome, has produced psychoses similar to Mescaline. Now we come back to Serotonin which also has an indole nucleus. Serotonin is antagonized by LSD and yohimbine and ergotamine. Mescaline, containing an indole-like nucleus, does not antagonize Serotonin. These facts are

stimulating a great deal of research in the search for a biochemical explanation and perhaps treatment for mental diseases.

Finally Reserpine has an indole nucleus and just the past week comes a report that it has some as yet uncertain effect on the bound Serotonin in the brain. Perhaps its empirical use in nervous disease may yet prove to be of scientific interest.

Niels Stensen in a lecture on Anatomy of the Brain in 1669, said "Beautiful are the things we see; more beautiful is what we know; But far the greatest are the things we do not know".



# ELECTROCARDIOGRAM OF THE MONTH\*

DALE GROOM, M. D.°°

Charleston, S. C.

**Case Record**—A 44 year old Negro painter was seen in the Emergency Room complaining of "pain in the heart and shoulders" of about 8 hours duration. Shortly after awakening that morning he had noted a rather severe substernal chest pain, radiating into both shoulders, arms and neck. He described the pain as "stabbing" in nature, aggravated by deep inspiration or by movements of the head and shoulders, and only partially relieved by aspirin. He acknowledged having had a respiratory infection with cough, headache and sore throat during the previous two days but stated that he had felt reasonably well otherwise and had never experienced any similar chest pain prior to this acute illness.

The physical examination was unremarkable except for a temperature of 99° and questionable slight diminution in the heart sounds.

The electrocardiogram below was taken in the Emergency Room, following which the patient was admitted to the hospital with the provisional diagnosis of acute pericarditis.

Treatment was limited to bed-rest and symptomatic measures. On the third hospital day a transient pericardial friction rub was heard. Aside from a leukocytosis (16,000 per cubic mm.) and the abnormal electrocardiographic findings, all laboratory and clinical tests including sedimentation rate, tuberculin skin test, and chest roentgenogram were within normal limits. The patient's pain gradually subsided within a few days, the ECG abnormalities and leukocytosis persisting for about three weeks. His convalescence was uneventful.

**Electrocardiogram**—The sole abnormality in this tracing is elevation of the ST segments in all standard and precordial leads. The QRS complexes are otherwise entirely normal throughout, as are the T waves. Only in lead aVr is the ST segment depressed below the baseline, and in this lead the T wave is normally inverted.

Serial electrocardiograms during the three week interval following the above tracing showed gradual reversion of these ST displacements to normal. No T wave abnormalities appeared at any time.

**Discussion**—The most characteristic electrocardiographic findings in acute pericarditis from whatever cause are elevations of the ST segments in virtually all leads. Presumably this is due to injury of a layer of myocardium immediately underlying the epicardium with a resultant "current of injury" over a wide area of the heart's surface. Hence in all leads which record effectively from the outer surface of the heart the ST shift appears as an upward displacement; in aVr, which is essentially an endocardial lead in that the electrode "looks into" the interior of the heart from the right arm, the displacement appears downward because normal myocardium is interposed between the injured area and the electrode.

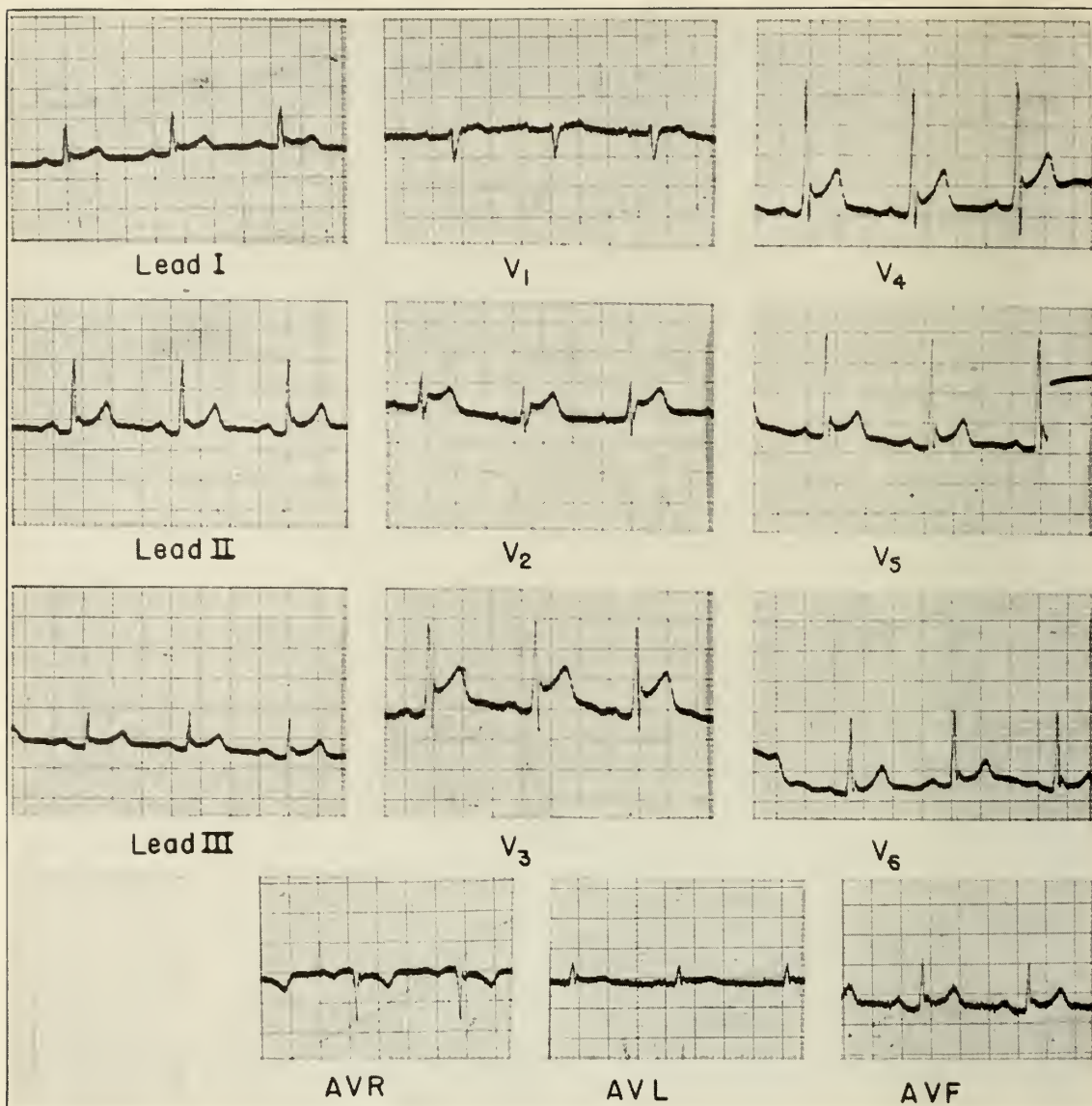
Myocardial infarction, on the other hand, is a more localized process and generally gives rise to *reciprocal* ST displacements, the direction of which depends upon the location of the injured area. Thus elevation of the ST segment in lead I is ordinarily accompanied by depression of the segment in lead III in the case of infarction of the anterior wall of the heart, or elevation in III and depression in I when the posterior wall is involved.

Much has been made of the fact that in acute pericarditis there is an upward concavity of the ST segments, a pattern which is well illustrated here. This is due to the fact that the T waves are upright and the QRS complexes normal. Coronary occlusion more often produces an upward convexity of the displaced segments. In the later stages of pericarditis, particularly where there has been appreciable damage to the outer layers of myocardial tissue, flattening or inversion of the T waves does occur, often persisting for several weeks. Any pericardial effusion may, of course, lower the voltage of all deflections.

Unfortunately the diagnosis of acute pericarditis is not always so obvious in the electro-

\*One of a series of clinical-electrocardiographic correlations. Purpose of this series is the presentation, not of necessarily rare or unusual ECGs, but of those which illustrate basic electrocardiographic principles or which contribute prominently to the clinical diagnosis.

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cardiogram. The ST changes may be minimal or atypical, or may not appear at all unless the tracing is taken sufficiently early in the course of the disease. It is also well to remember that high takeoff of the ST segments in some leads is occasionally seen as a persistent finding in presumably normal individuals. As in so many cases, the sequential changes appearing in repeated ECGs, and especially the correlation of these changes with the overall clinical picture, are of the greatest significance in electro-

cardiographic interpretation.

This patient's course is typical of acute benign non-specific pericarditis, a disease which may closely resemble acute myocardial infarction but in which complete recovery is the rule. This disease, of unknown etiology, was described a century ago. Its increasing recognition in recent years has been due in large part to the development of electrocardiography.

# REVIEW OF 1,500 TONSILLECTOMIES\*

NORMAN O. EADDY  
Sumter, S. C.

This is a review of 1,500 tonsillectomies and adenoidectomies without known fatality, lung abscess, or other chronic or disabling complications. I hope it will help lower the admittedly already low mortality and morbidity rate of the operation.

Conceivably a fatality or complication could have occurred about which I was not informed but that is of course most unlikely.

It might be said that this study is useless—that the mortality rate is so low as to be satisfactory. But so long as there is any fatality rate above zero it is too high. If only one patient in a thousand loses his life he has lost all the life he had—to him the rate is 100%.

Suppose we consider the problem very briefly from eight different angles.

First, I think we can quickly agree that as a rule the better the surgeon is trained the better surgery he will do. In some general hospitals almost anybody who wants to is allowed to do tonsillectomies and adenoidectomies.

But even after the completion of thorough training the surgeon should never stop practicing, in his mind's eye, what he would do if confronted with any conceivable emergency. Otherwise he may have to stop and take time to decide what to do when there is no time. He should be constantly able to tie off an external carotid artery; to cope with cardiac or respiratory arrest; to handle "anesthetic convulsions"; or to relieve threatened tracheal obstruction by vomitus during early anesthesia when the patient's teeth are clamped tightly shut, and so on.

Second, consider for a moment the selection of patients. It should go without saying that no patient should be subjected to this operation without valid reason. The very patient operated on unnecessarily might be the very patient to die unexpectedly.

In my opinion there are three frequently advanced reasons for advising the operation

which are open to some question. I refer to mouth breathing, repeated otitis media, and impaired hearing. I have been not infrequently surprised to have such patients relieved by treating an underlying allergy. Associated manifestations of allergy (a skin rash, history of asthma, etc.), the pale color of the nasal mucosa in nasal allergy, perhaps the seasonal rhythm of the ear, nose and throat attacks, or a family history of allergy may give us a lead that the trouble should be investigated from allergic point of view rather than rushing into an operation to remove the (perhaps unoffending) tonsils and adenoids.

I believe it is wrong to operate on these mouth breathers, etc., on the theory that it *might* help the patient. It might kill him.

If we do operate on such patients and if we are persuaded that the patient is vastly improved let us not forget that there are those who insist a deep general ether anesthesia will itself frequently relieve many cases of respiratory allergy—for as long as six months!

Of course, it goes without saying that the patient should be in such condition that the operation is not more dangerous than the disease.

In short, there is still room for much discrimination in the selection of patients for this operation.

In the third place, perhaps we should consider when the patient should be admitted to the hospital. Where practical it seems best to me to admit him the day before the operation. The patient can become somewhat accustomed to his environment, his fear will be less, his temperature can be charted, he can be watched for periodic coughing, etc.

Fourth, let us consider preoperative procedures. I would never tell a patient the operation was free of danger. Any operation is dangerous.

Preoperative medication consists with me almost entirely of discussing the forthcoming episode with the patient, whether he is 3 or

\*Talk delivered at the annual alumni meeting of the Brooklyn Eye & Ear Hospital, Brooklyn, N. Y. May, 1955.

63 years old. If a general anesthetic is to be used I rarely give anything except some atropine—1/350th to 1/400th grain for children up to a maximum of 1/150th grain for an adult. I am convinced the danger increases in direct proportion to the increase in preoperative medication. Frankness and reassurance have proved eminently satisfactory for me.

Except to encourage the drinking of a moderate amount of milk (for calcium) I avoid all other drugs such as vitamin K, etc., unless the patient is obviously undernourished.

In spite of reports of (transient) bacteremia after tonsillectomy I do not use penicillin, etc., pre- or post-operatively routinely. Experience has proved that from a practical point of view it is not necessary. It can be dangerous.

I shall omit extensive discussion of physical and laboratory examinations. Surely everybody checks the heart, lungs, urine, and hemoglobin. I still order bleeding and clotting times but I have never known the information to be of any value.

In considering preoperative procedures if a colored, adult patient, especially a male, says in a calm voice just before the anesthetic begins, "I am going to die", I would defer that case. They have been disconcertingly correct at times. No one knew why for a long time and many did not, and will not, believe it. Now fear is recognized as one of the possible causes of cardiac arrest, perhaps by causing the secretion of excessive epinephrin.

The fifth matter of the eight concerns the anesthetic and the anesthetist.

The surgeon's and the anesthetist's personalities should be compatible else they should not associate themselves together for an operation.

I cannot agree that the anesthetist should prescribe preoperative medication unless the surgeon agrees the anesthetist is more capable than he is to do so. The patient usually chooses his surgeon, leaving the choice of the anesthetist up to the surgeon. If anything goes wrong the patient or his relatives usually direct any animosity towards the surgeon.

For induction I have rather consistently used five to fifteen seconds of ethyl chloride sprayed

gently on an open ether mask, switching then to drop ether on the same mask. Skillfully used I think it is superb.

With reference to the induction, I find it particularly satisfying to ask the child to "blow it away" as he breathes instead of simply asking him to "breathe" or "not to hold his breath." Once a patient exhales he will inhale. I have never seen a patient hold his breath after exhalation—only after inhalation.

I have had no experience with endotracheal anesthesia but have not found a need for it.

In doing tonsillectomies under local anesthetics I think it is a mistake to spray the throat with pontocaine or anything else. It is not necessary, is definitely dangerous, and can be fatal. A cotton-tipped applicator soaked, but not dripping, in 2% pontocaine hydrochloride solution, passed gently through one inferior nasal meatus (ignoring the nostril on the other side), and rested for a minute against the mucosa of the nasopharynx will pretty well abolish the gag reflex without disturbing the all-important cough reflex.

The routine use of oxygen at the end of the anesthesia is probably a questionable procedure to say the least. If oxygen is needed something is wrong and should be corrected. If not needed I see no reason to give it. And administering the oxygen may obscure the fact that something is wrong.

In injecting the local anesthetic solution we can never be too careful. I once injected twelve grains of cocaine hydrochloride thinking I was using a weak solution of novocaine. In about one minute the patient was seemingly quite dead but spastic—arms flexed, apparent respiratory paralysis, no detectable pulse, dilated pupils, etc. Fortunately intravenous injection of two tablets of 1/4 grain each morphine sulfate plus a small part of a third tablet resulted in complete obvious recovery in less than five minutes. He is now a grown man, quite healthy, and still has his tonsils.

Surely it must be superfluous to remind anyone to retract on the plunger before injecting the anesthetic solution.

In general anesthesia, vomiting during the induction stage or shortly thereafter when the

teeth are clamped tightly creates an emergency of the highest order. In my opinion stopping the anesthetic here to try to aspirate the vomitus is inviting disaster. Teeth may have to be broken out to get the aspirator in. Once in, the particles of vomitus may be larger than the inlet holes of the aspirator. I do not even slow up the anesthetic if this happens but just turn the patient on his side so no vomitus can enter the trachea. When the patient is sound asleep the vomitus can be safely and easily removed.

If the patient is strapped down, turning him quickly is impossible.

The sixth of the eight aspects is the operation itself and that I will largely skip. Surely anything I might say here to a group in an eye, ear, nose, and throat hospital would be superfluous. Suffice it to say the tip of the aspirator instruments are prone to come loose and fall into the patient's trachea and that ether will catch fire at the most unexpected times. Finally, if the patient is getting under the anesthetic too deeply in spite of the machine having been turned to the 'off' position, take the ether tip out of the patient's mouth. At worst it can only make the anesthetist mad. I have seen it save a life—ether was still being emitted from the ether tip even though no bubbles of air could be seen passing through the jar and the machine was turned off.

The seventh, the next to the last, thought is that of the immediate post-operative care without a recovery room. I think we should always remember a patient can be so easily killed by a little vomitus if the patient is unconscious and is on his back. I routinely place the patient on his side or abdomen so that the mouth is the lowest part of the respiratory tree then emphasize the importance of keeping his chin elevated off of his chest. If the chin is allowed to fall, the patient cannot breathe. I will not have an unconscious patient of mine left alone. Rather, I have sat with the patient myself and, if necessary, will again.

The eighth and last point is that of the final postoperative care. The only thing I want to mention is bleeding. I tell my patients that if they bleed at any time, day or night, to come at once to the hospital and have me called.

And I see them then myself. Blood transfusions, coagulants, oxygen, morphine, Adrenesem, etc., I simply do not use except as auxiliary measures. The only treatment I know for bleeding is to stop the bleeding. In adults, removal of the clot and injection of a little novocain-epinephrin solution usually suffices. In children, I put them back to sleep right away in the operating room and tie off the bleeder. In a few instances I have had to suture a Gelfoam sponge in the fossa. Adenoid fossa bleeding can be persistent. If necessary a Gelfoam, or similar, sponge can be left there—with the usual two strings coming out of the nose from it and one out of the mouth to permit its easy removal.

Certainly, as I see it, when a patient is pale from loss of blood oxygen is very poor permanent treatment. As an example, only recently I was called at 2:00 o'clock on a freezing morning to see a child about dead from loss of blood following a tonsillectomy and adenoidectomy. He was in an oxygen tent and a blood transfusion was being attempted—on collapsed vessels. We hurried him to the operating room, gave him a few whiffs of ether (he was virtually unconscious), removed the clots, controlled the flow of tarry-looking blood, then gave him a transfusion. His recovery was rapid.

Especially on surgical floors I think we should regard the use of oxygen with a jaundiced eye. I have repeatedly seen it do serious to irreparable harm, its misuse even resulting in death, but I do not recall ever having seen it do any good on a strictly surgical case. Used over-abundantly it can make the patient unaware of the formation of excessive carbon dioxide in the blood; it will promote fire; it is expensive; and it may obscure serious underlying pathology. In short, my opinion is that we should beware of oxygen except as a very, very temporary emergency measure on surgical floors.

Here, then, are some impressions I have formed since 1931 in doing fifteen hundred consecutive tonsillectomies (usually associated with adenoidectomies) as to how we might make these relatively safe operations safer.

# A REPORT TO THE SOUTH CAROLINA MEDICAL ASSOCIATION ON THE EXPANSION PROGRAM OF THE MEDICAL COLLEGE OF SOUTH CAROLINA

By  
KENNETH M. LYNCH, M. D., *President*

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"Where there is no vision the people perish;  
but he that keepeth the law, happy is he."  
—Proverbs 29:18.

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## Introduction

As expressed editorially in the *Journal of the American Medical Association*, January 21, 1956, p. 210, "the present-day medical school is no longer simply an educational institution devoted solely to the undergraduate training of physicians. Today's medical schools are complex centers of medical science, concerned with the basic education of medical students, with the provision of graduate and postgraduate education for physicians, and with the conduct of activities in the constant search for new knowledge and in the prevention, diagnosis, and treatment of human illness."

At the beginning of 1944 the Administration of the Medical College of the State of South Carolina (changed to the original name, Medical College of South Carolina, by legislative Act, 1952), faced with certain critical conditions and facts, initiated the planning that came to be known during its development phase as the Expansion Program. In a hearing before the Ways and Means Committee of the House of Representatives in January 1944, I expressed a conviction that it was futile to attempt to meet the demands being made upon the school unless the State committed itself to support by providing the required physical facilities and an adequate annual budget. The upshot of this frank discussion was that the General Assembly made a full appropriation for our budget requested for that year (and has continued to do so annually to the present moment), and charged us with bringing a plan

covering the needs of the institution for consideration at the next session.

This proposition also played a part in the decision of the General Assembly to secure an outside expert study of the needs of the entire area of State institutions of higher learning, out of which came the Peabody survey and report of 1945. In that report the claims and plans of the Medical College were fully supported. (See *Jour. S. C. Med. Assoc.* March, 1946).

Encouraged by these sympathetic and favorable circumstances, on October 16, 1944, a basic plan was presented to the Faculty, and, upon its approval, this was adopted by the Board of Trustees on June 15, 1945.

Believing in the traditional and important position of the medical profession in medical education, and having assurance that the State was awakening to the requirements of support, the other vital step was taken. The medical profession was brought into responsible participation by inviting the local unit of organized medicine and the South Carolina Medical Association to survey the situation, toward approval of our program and support of our plans.

The South Carolina Medical Association delegated a commission of seventeen members under the chairmanship of Dr. James C. MeLeod. This commission made a thorough study, including an inspection of the institution and hearings for interested parties, and at a special called meeting, with record attendance, January 3, 1946, the House of Delegates of the

Association recommended complete endorsement, which was adopted "by unanimous standing vote" (*Jour. S. C. Med. Assoc.*, February, 1946).

It is because we undertook this course, of placing the proposition squarely before the responsible medical profession, and thereby committed ourselves to that sponsorship, that it now becomes proper and in order that this open report upon what we have done with the trust thus given and accepted should be made to the South Carolina Medical Association and its membership. The form of this report and the manner of its presentation is consistent with the original approach.

It was not only our conviction that organized medicine is a vital and responsible factor in the development of medical education; it is my belief that failure of medical school authorities to give proper recognition and to secure approval, as well as to provide for protection of the valid interests of the profession, comprise the real cause of the frictions that have afflicted similar efforts elsewhere. It is my belief that such conflicts are avoidable by the simple course of taking all *bona fide* interests into properly balanced account. We have been unusually free, and will remain so, if we adhere to the charted course and the policy of "open covenants openly arrived at" over the conference table of right and reason.

In the following sections an attempt will be made to briefly relate actual applications of the principles approved by the Association. The details are established in the adopted documents concerned, particularly in the "Master Plan" of the Medical College and the "Operational Organization of the Medical College Hospital." These documents are recorded and have been substantially published. They are subject to further publication in due time. Actually they have the effect of law, by Legislative provision.

### The Program

Perhaps the factor that made it possible to gain serious consideration of the needs was the critical shortage in the supply of doctors. Conditions were so out of balance during the war years that there was general alarm.

Through expediency in connection with the war effort the entering class at the Medical College had been enlarged from 40 to 50 members. As our plans became reality, it was increased by successive steps to the goal of 80, which was our calculated objective. Together with the institution of the voluntary four-quarter system, we are now producing approximately 125% more doctors than previously. While not everyone is satisfied with current doctor-population ratios, we have played our part in substantially curing the doctor shortage, and not by lowering the standards but withal providing progressively better training opportunity.

In laying plans for the facilities and budget required for the enrollment we estimated as suitable for South Carolina, it was realized that the keystone should be clinical facilities. This would be the most difficult and costly part to provide and support; without adequacy there, even abundance otherwise would not suffice. In the beginning it had to be recognized that the facilities available to the school were not adequate for an acceptable teaching program, even for the class of 40 students previously taken. Furthermore, there was no prospect that this situation could be improved except by securing such additional clinical facilities as were required within ownership control. On the contrary, the reasonable expectation was that existing opportunity would lessen. Experience has proven that except for the completion and opening of the Medical College Hospital, the clinical teaching opportunity would by this time have been totally inadequate in practically all phases for an acceptable present-day medical school operation.

Charleston County Tuberculosis Sanatorium (Pinelhaven) has joined the Medical Center, with a new building and an operation that is of mutual advantage. The association between the Medical College, Roper Hospital and Pinelhaven will continue to be maintained as a co-operative enterprise, co-ordinated in every way of mutual advantage, and contributed to by the Medical College in every helpful measure that is desired and feasible.



*Legislators Greeted by College Officials.*

The Medical College Hospital has been opened for operation with organization and procedure for applying the plans approved by the South Carolina Medical Association. This hospital, provided with unsurpassed appointments, equipment and skills for the care and comfort of patients, was dedicated under sponsorship of the Association on May 10, 1955. While primarily proposed and materialized as a medical school hospital, it stands at the service of the regular profession as a referral service in which traditional and enduring relations of physician to patient and of physician to physician will be carefully preserved and practiced. The principles of organization and operation as published in the *Journal of the South Carolina Medical Association*, 1945, and approved by the Association as already recited, may be compared with the rules and regula-

tions now fixed in legally effective adoption. Briefly and concretely these are as follows:

- (a) Admission of patients is only by direct referral from private practitioners, except that referral may be indirect in state supported cases.

While in the original plan it was specified that patients would simply be referred to the staff, in application it has not been possible to apply the rule literally. The questions of corporate or institutional practice of medicine, of partnership type of professional organization, of "socialized medicine," all compelled that patients must be accepted under individual responsibility of the members of the staff. However, the principle of group judgment and

control of all patient care is being carried through.

- (b) There is no county or municipal contractual arrangement for hospital care of the indigent.
- (c) Referred patients of indigent status must furnish acceptable personal guarantee or certification of a responsible public official that the minimal hospital charges will be paid.
- (d) For patients judged by the Hospital to be able to pay only the hospital costs, no professional charges will be made.
- (e) The Staff of the Hospital is limited to the Faculty of the Medical College.
- (f) Referring physicians automatically become associate staff members for their referred patients.
- (g) An effective balance between the so-called full-time and the part-time halves

of the staff has been established, to give equitable privileges and participation in accordance with the requisites of high grade medical school faculty standards.

- (h) Although full teamwork is exercised for every possible advantage to the patient, professional service is individualized. No corporate type or state type of medical care is in practice or in contemplation, except as universally recognized by the profession and prevailing in the care of indigent groups.
- (i) As particularly specified within the approval given by the South Carolina Medical Association, in order to ensure against undercutting as well as excessive charges, a professional fee list conforming to current practices in this area is in effect.



*Legislators Depart.*

- (j) Strict control over augmentation of faculty salaries, as well as incomes of non-salaried members, from professional charges to patients cared for in the hospital is established under the requirement of approval of the Board of Trustees and the State Budget and Control Board. Pending further experience, no maximum has yet been set, but adopted procedure ensures against out-of-line remuneration.
- (k) The principle that the institution and the State cannot profit from the personal professional services rendered by staff members is firmly entrenched. Likewise, the rules of operation are such as to prevent members of the staff from undue financial reward, although in order to ensure high quality it is recognized that the opportunities for remuneration must be made comparable to those of similar positions in other locations.
- (l) By rules and regulations the staff agrees that any surplus of professional revenues undistributed by the limiting authorizations shall be used for research and improvement of the skills and facilities of the services and not for general expenses of the hospital operation.

#### Other Units

Although the interest and support invited from the Medical Association was particularly related to the provision of clinical facilities for the medical school, the medical profession has an interest in the entire area, including the activities ancillary to medical education.

Of vital importance in this category is the training of nurses, especially in this time of critical shortage. The Medical College now has under construction a School of Nursing building which will provide classrooms and laboratories as well as living and entertainment quarters and administrative offices for an expansion of its enrollment in this school. In addition to the traditional training course there is good prospect of developing a collegiate nurse educational program in cooperation with academic institutions, in order to provide advanced educational experience and a variety of special training opportunity.

While South Carolina remains in a deplorable position on the lowest rung of the ladder of the States in the ratio of dentists to population, and although an Act establishing a School of Dentistry at the Medical College has already been passed by the General Assembly, we have not yet been successful in securing appropriations for construction and operation of this badly needed unit. We shall not rest until that is accomplished.

Although the School of Pharmacy has been provided with new quarters and has a full enrollment, we continue to be challenged by the question of two state-supported pharmacy schools. We remain firmly of the belief that pharmacy belongs in the medical and health field and that whatever educational activity the State provides in that area belongs at the Medical College.

Another educational and training activity badly needed for the State is in public health. A School of Public Health is one of the units included in the "Master Plan." As an important institute in the Medical Center, it is already overdue.

Housing for students of all categories (of which the total enrollment in 1955 was 607), as well as for other personnel, has come to have more significance than merely provision of living quarters. Medical students and many trainees and other workers must be on continuous duty or call. Alumni Memorial House, a dormitory for unmarried men students, has only partially solved the problem. The Medical College extended itself in securing that model building by means of a self-supporting loan. The Alumni Association provided the site and a large part of the cost of furnishing the rooms, as well as contributing to the instructional program costs through the American Foundation for Medical Education.

#### Summary

In 1944 the Medical College of South Carolina began the development of an over-all plan and program which was submitted to the South Carolina Medical Association in 1945 for its approval and sponsorship.

We are happy to report a full measure of success in maturing the plans of the trust thus given and taken. Without the approval and

support fully given by the Association officially and by its membership collectively and severally, it would have been a dubious venture; with that sponsorship it has been accomplished more satisfactorily and more harmoniously than such enterprises sometimes experience. The job has not been easy. It has not been finished; by reason of its very nature there never can be a finishing point. The investment of money has been large, and so will be the cost of maintenance. We bespeak the continued, constant support of the profession to which we are related, indebted and responsible. As repeatedly said in our publications:

"Much has been said and written of plans for health improvement and better medical care for all. The basis for any good health and medical care program must rest in adequate provision for the supply of a sufficient number of thoroughly prepared doctors, dentists, pharmacists, nurses, technicians, and all other types of medical personnel that have become necessary. The State can afford the required investment and financial support. Under present and foreseeable conditions, it cannot afford to do otherwise." (Annual Report of the President, Medical College of South Carolina, 1954.)



*JAMES MOULTRIE AND  
JAMES MOULTRIE, JR.*

# Editorials

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## RICE ENRICHMENT

The question of the need of enriching the rice which we have carefully denuded of its richness seems to be passed around among the physicians, the nutritionists, and the brokers of the state. Leaving out the last category, which is frankly and vociferously interested chiefly in the cost and trouble of handling treated rice, we seem to come down largely to the thought that enrichment is fine, but its efficacy depends on the manner in which rice is washed and cooked. A survey of our popular habits in the use of rice would be enlightening, especially in the low-income group for whom enrichment would mean most. In the meantime, two points of view are presented below.

How do you cook your rice?

### I

Brown rice (hulled rice, unpolished rice) is an excellent food and compares in general with whole wheat in nutritional value. However, to improve its appearance and its keeping qualities, rice is "polished", which process removes almost all of the vitamins and mineral elements and reduces its nutritional value quite considerably. In general, the same situation occurs during the milling of wheat and processing of other food products.

Enrichment of wheat flour, etc. has been practiced for a number of years. The question has arisen in regard to a similar "enrichment" process for rice. On the surface this would seem to be a logical and desirable procedure. However, on closer scrutiny, perhaps such a procedure is not desirable. Rice occurs as discrete kernels and not as a flour. Added vitamins would have to be sprayed on the surface of the kernels or added as pellets or particles. The B group of vitamins is very soluble in water. Brief washing would probably remove large quantities of added vitamins, and boiling would almost certainly remove all added vitamins.

If the wash water and cooking water is dis-

carded, the vitamins will be lost. Could the habits of rice cooking in the population be changed? Which is better, to know the rice is inadequate, or to believe that it is adequate when it is not?

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Professor of Chemistry  
Medical College of S. C.

### II

Since there are population groups in South Carolina who consume large quantities of rice, it seems only fair that these groups have the same protection as those who eat quantities of wheat and corn products and who now benefit from the enrichment of these foods.

Rice may be enriched by the spray method or by the use of a rinse-resistant pre-mix. Rice enriched by the spray method should be packaged and handled in a sanitary method so that washing before cooking is not necessary. The package should be properly labeled, and instructions given for preparation, so as to retain the nutrients.

A survey was made of Home Demonstration club women and 97% agreed that they would be willing to cook clean rice without washing it. During the past year agricultural and health agencies have conducted an educational program on proper methods of cooking rice, both in homes and in institutions.

Rice sold in bulk may need washing prior to cooking. This type should be enriched with rinse-resistant pre-mix.

The usual method of cooking rice in South Carolina is in a rice steamer, a double boiler, or in a single pot with about equal amounts of water and rice. The rice is allowed to cook rapidly at first and then steam until dry and fluffy. Rice cooked in this manner absorbs the water-soluble vitamins and iron used in the enrichment mixture. It is the opinion of agricultural and health workers that most people in the coastal area of South Carolina cook rice in this manner. There are a few people in the state who do drain off the cooking water,

thereby losing most of the water soluble vitamins. Nineteen prenatal patients were recently interviewed at a Medical College clinic. Fifteen patients said they do not drain rice while cooking and four said they do drain off the cooking water. A prominent club woman in Charleston states that she believes not more than one in forty drain partially cooked rice. Neither the Charleston Junior League Cook Book nor the Mount Pleasant P. T. A. Cook Book gives directions for draining rice during the cooking process.

In January a rice miller in South Carolina stated that the cost of the ingredients to enrich 100 pounds of rice by the spray method was five cents and by the rinse-resistant premix method was nineteen cents per 100 pounds. Since that time, two chemical companies have announced a reduction in prices of enrichment ingredients.

Enrichment of rice is required by law in Puerto Rico and Dr. L. J. Roberts, eminent nutritionist, reports that this has been a valuable public health measure for the island people. Enriched rice is shipped from the States to Puerto Rico.

The South Carolina Legislature has made an outstanding contribution to the health of its citizens by passing laws requiring the enrichment of refined wheat and corn products, and now it is proposed that similar legislation regarding white rice be enacted. The enrichment of rice is recommended by physicians, The National Research Council, State and Federal Health Agencies, and The South Carolina State Nutrition Committee, which is composed of representatives from health, welfare, and agricultural agencies in the state.

The enrichment of grain products is not the entire answer to our nutrition needs as it is well recognized that nutrients other than those provided in these foods are inadequate at times in the diets of some. But the enrichment program is one method of helping people most in need until they have the knowledge to choose and the ability to purchase the foods needed for an adequate diet.

Julia P. Brunson, Nutrition Consultant  
State Board of Health of S. C.

## ANTI-HISTAMINICS AND COLDS

As far as the common cold is concerned, the antihistaminics seem to have overstayed the enthusiastic welcome which they received a few years ago. Basing their judgment on several apparently sound studies, the profession and the public hailed the long-sought cure with much soundings of trumpets—and noses. Unfortunately, later, perhaps more exact studies could not substantiate the early claims, and sniffles and snuffles continued in spite of the generous use of the supposedly curative drugs.

The present situation in which many manufacturers still proclaim the virtues of the antihistaminics in the upper respiratory infections is typical of that in which many drugs have been found in the past. While their introduction may take only a few days or months, their ejection from current therapy may require decades of disappointment.



## HOW ATTITUDES CHANGE

There was a time, and not so long ago, that crippled children were kept in back bedrooms and hidden from relatives, friends and neighbors. Their parents felt ashamed and actually believed that they were to blame for their children's handicaps.

Today that attitude is changed and crippled children have been brought "out of the dark" and "into the light" through specialized care, treatment and scientific rehabilitation. This change, which is making productive citizens

out of the handicapped, has been brought about by medical groups and by organizations among which the Crippled Children Society of South Carolina, Inc. is a leader. This is the state affiliate of the National Society for Crippled Children and Adults which has more than 1,600 Easter Seal affiliates across the nation.

There are crippled children societies in each of the 48 states, District of Columbia, Alaska, Hawaii and Puerto Rico, and you have probably contributed to their annual Easter Seal campaign.

The South Carolina Medical Association appoints a 15 member advisory board to advise the Society in the program and project field in South Carolina. Joseph I. Waring, M.D., Charleston, serves as Chairman, with William Weston, Jr., M.D., Columbia, as Vice Chairman. Other members of the Advisory Board include: O. B. Mayer, M.D., Columbia, President, South Carolina Medical Association, Ex-Officio; John W. Bell, M.D., Greenwood; C. Guy Castles, Jr., M.D., Columbia; Thomas R. Gaines, M.D., Anderson; T. G. Goldsmith, M.D., Greenville; and James T. Green, M.D., Columbia.

Also, George Dean Johnson, M.D., Spartanburg; Joseph H. King, M.D., Manning; Frederick E. Kredel, M.D., Charleston; Sam G. Lowe, Jr., M.D., Rock Hill; E. Walter Masters, M.D., Columbia; Julian P. Price, M.D., Florence; John A. Siegling, M.D., Charleston; and W. O. Whetsell, M.D., Orangeburg.

The Easter Seal Society aided 2770 persons in South Carolina during the past year. With new medical discoveries and techniques making such strides in the rehabilitation of the crippled, there are many more who can be helped. At the same time services for crippled children continue to grow more costly each year. Funds are desperately needed to continue and expand care and treatment to reach more crippled children. There is no duplication of service with any other agency or organization.

Easter Seal contributions have proved that crippled children can be rehabilitated into tax-paying citizens rather than remain tax-sup-

ported ones. This year we must open up our hearts and be as generous as we can during the 1956 appeal, March 10 to April 10.

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### THE POST GRADUATE LECTURE SERIES

Sponsored by the South Carolina Chapter of the American Academy of General Practice and presented by the Medical College of South Carolina, a series of fifteen lecture sessions have been completed recently at four points in the state; viz., Aiken, Clemson, Rock Hill, and Florence. Subjects included pulmonary diseases, surgery, obstetrics and gynecology, medicine, and pediatrics, and were presented by members of the faculty of the Medical College, both full time and the part time.

This plan of bringing teaching from the College to the physician has been contemplated for a long time and should prove to be a valuable method of contact. The function of a state medical college should desirably include continuation of instruction when personnel, time, and funds permit. At times and places when all of these are adequately provided, a continuation and extension of courses similar to those recently held should prove to be invaluable. In respect to our own College, there must probably be some limitation by circumstances.

The cooperation of the faculty will no doubt be appreciated highly. Especially should thanks be due to the part-time members, who serve the College and the state without remuneration.

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### SUPER SPECIALISTS

If the fine divisions of the healing art among the ancient Egyptians were not well known, one might be startled to find that there is an American Society for Surgery of the Hand which has recently held its eleventh annual meeting of more than 900 surgeons. Undoubtedly some of them were specialists on the little finger or the thumb, and perhaps there was even a section of specialists on the distal phalangeal area who pointed with pride to their accomplishments.



## PRESIDENT'S PAGE

Congratulations to each member of the Association, the Woman's Auxiliary, and the many others who have aided and given support in passing the repeal of the Naturopathic Act. A great service has been rendered the people of South Carolina by this legislation.

O. B. MAYER

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## NEWS

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Dr. Clarence W. Legerton, Jr. has opened an office for the practice of gastroenterology at 66 Pitt Street in Charleston.

Dr. Legerton is a diplomate of the American Board of Internal Medicine, a diplomate of the Sub-specialty Board of Gastroenterology, an associate of the American College of Physicians, a member of the American Gastroenterological Association and of the American Federation for Clinical Research.

Dr. James G. Jeanes was presented a plaque recently by Dr. J. C. Hedden, director of the Spartanburg Health Department, for his cooperation and service in the examination of children in the Lyman school. The award was sponsored by the local PTA.

At the annual meeting of the Medical Staff of Divine Saviour Hospital, Clover, Dr. E. A. Perry of Clover was reelected chairman.

Dr. C. P. Roper was named to succeed Dr. E. E. Strong as vice-chairman and Dr. John M. Pratt will become secretary succeeding Dr. G. F. Hiott.

The Southeastern Society of Neurology and Psychiatry held its 34th clinical meeting in the Jefferson Hotel in Columbia in January, for a business session, including the annual election of officers.

The speaker of the evening was Dr. Norton L. Williams, psychiatrist, of Charleston.

Dr. Robert Taylor of Spartanburg has opened an office in Lockhart. Dr. Taylor interned at the Spartanburg General Hospital, and has been practicing in Tennessee.

Dr. Rhodes W. Quisenberry announces the opening of his office at 4813 Rivers Avenue in Charleston Heights.

Dr. Carter P. Maguire announces the opening of his office for the practice of plastic, maxillofacial and reconstructive surgery, at 126½ Rutledge Avenue, Charleston.

Dr. Richard H. Butler has opened his office for the general practice of medicine at 16 E. Lewis Plaza, Greenville.

Dr. Butler is a graduate of the University of Kentucky, received his master's degree at the University of Tennessee and his M.D. degree at the Tulane Medical School of Louisiana.

Prior to engaging in general practice in Greenville, Dr. Butler served in the Medical Department, U. S. Army, during World War II and the Korean War. Between World War II and his recall in the Korean War, he was engaged in the practice of pediatrics, being associated with The Children's Clinic in Knoxville, Tenn.

The Florence County Medical Association met January 31 in its first meeting since reorganization at a business session held following the assembly of the Pee Dee Medical Association in Bennettsville.

The Florence County Association has for a number of years been nonfunctional except for business meetings. All scientific and fellowship meetings have been held under the auspices of the larger association known as the Pee Dee Medical Assn. There are seven vice presidents of this association, one from each county who is also president of his county organization. Due to the number of doctors in Florence County, it was decided to hold four meetings a year in Florence County in addition to those held by the Pee Dee Association. The next meeting will be held with Dr. Bruce of Florence at his country home.

At a business session, Dr. George Smith of Florence was elected vice president of the Florence County Association and in such capacity will be the next president of the association.

The present head of the association is Dr. Lebby B. King of Lake City. Dr. Kenneth Lawrence of Florence was elected treasurer. Dr. Lawrence is also secretary of the association from a previous election.

Joseph H. Marshall, M. D. announces the removal of his office for the practice of psychiatry to 116 Rutledge Avenue, Charleston.

Burgh S. Burnet, M. D. announces the opening of an office for the practice of orthopaedic surgery at 134 Wentworth Street, Charleston.

Dr. Hilla Sheriff, Director of the Division of Maternal and Child Health of the State Board of Health was invited to participate in the Fifth Congress of the Pan American Medical Women's Alliance, Inc. at Santiago and Vina del Mar, Chile. Dr. Sheriff will give a discussion of the development of the Maternity Shelter in Greenville, which was originally a project of American Women's Hospitals, a service committee of the National Women's Medical Association. The Shelter is now a thriving community project.

State March of Dimes Chairman Gen. James C. Dozier has announced that a new respirator center soon will be established which will further increase the care which South Carolina polio patients receive.

Gen. Dozier said March of Dimes funds already have equipped nine hospitals which are official treatment centers for South Carolina polio patients.

These hospitals are divided into two categories; primary and secondary.

The primary treatment centers are Columbia Hospital, Greenville General, Spartanburg General, Roper at Charleston, and University Hospital at Augusta, Ga.

The following secondary treatment centers: Anderson County Memorial, Orangeburg Regional, Medical Center at Charleston, and McLeod Infirmary at Florence.

Hospitals are designated either primary or secondary treatment centers for a number of reasons. The equipment available, the orthopedic surgeons available and other trained specialists available are most often the determining factors.

The new respirator center will be located during 1956 at University Hospital at Augusta, Ga., but will serve South Carolina patients as well as those from Georgia and other areas.

Respirator centers are used primarily to treat patients who must use iron lungs and chest respirators in order to breathe. The hospitals which treat polio patients have been equipped mainly through March of Dimes funds and from contributions from various individuals and organizations in the state.

Twenty-seven iron lungs are presently stationed in South Carolina. Should an epidemic occur, he added, more lungs could be borrowed from hospitals throughout the country.

Gen. Dozier said the use of iron lungs is not confined to hospitals alone. Two of these breathing devices are in use in private homes.

In addition to the iron lungs, eight chest respirators and 34 hot pack machines also are permanently stationed in this state. Rocking beds are borrowed from the National Foundation for Infantile Paralysis whenever they are needed.

Dozier said the establishment of the new respirator center at Augusta means that many South Carolinians will be able to get necessary treatment and at the same time be close enough home to see their families and friends more often. Heretofore South Carolina patients who required treatment in a respirator center had been sent to Nashville, Tenn.

Dr. David F. Watson has received his discharge from the medical corps of the Air Force and is returning to his offices at 15 Medical Court, Greenville. He will be associated with Dr. Willard C. Hearin, Jr. in the practice of obstetrics and gynecology.

Dr. Roy P. Finney, of Spartanburg, former Gaffney physician, has announced the reopening of his offices at 134 Pine Street in Spartanburg.

Dr. C. W. Brice, Jr., was named Chester's Young Man of the Year by the Junior Chamber of Commerce at its annual recognition meeting on January 24.

Dr. William P. McDaniel, was elected as Chief of Staff of the Medical Staff of the Colleton County Hospital at the regular meeting of the staff members held December 28. Dr. W. M. Bennett, was elected associate Chief of Staff. He is the retiring Chief of Staff. Dr. W. Earl Fender was elected secretary-treasurer, taking the place of Dr. Carroll Brown.

Dr. Joseph D. Thomas of Denmark, is the new Chief of Staff of the Bamberg County Hospital.

He succeeds Dr. N. J. Knoy. Others elected at the meeting include: Dr. M. C. Watson, chief of obstetrics; Dr. N. J. Knoy, chief of surgery; Dr. H. J. Stuckey, chief of medicine; Dr. Herbert L. Allen, chief of pediatrics.

Dr. Hoyt Bodie of Batesburg, has been named the "Young Man of the Year". This honor was bestowed upon him at the annual Distinguished Service Award Banquet held by the Junior Chamber of Commerce at the Skyline Club near Johnston.

Lt. Cmdr. Robert A. Pringle, Medical Corps Reserve, U. S. Navy, has been released to inactive duty and has reopened his office on Remount Road, Charleston Heights.

Dr. Pringle was recalled to active duty by the Navy in August, 1954, and was assigned as regimental surgeon, 8th Marine Regiment, Second Marine Division, Fleet Marines, Camp Lejeune. He was later stationed at the U. S. Naval Shipyard Dispensary, Charleston.

Dr. E. M. Dibble of Marion, for 18 years chairman of the State Board of Medical Examiners, was named Marion's "Citizen of the Year" by the town's Junior Chamber of Commerce, and received an engraved plaque from Mayor Carroll Atkinson.

Dr. Leon Banov of Charleston, who was elected a vice-president of the Southern Branch of the American Public Health Association in New Orleans last May, has been elected president to succeed Dr. Frank Hall, who died recently in Gainesville, Florida.

Dr. Banov will fill out Dr. Hall's unexpired term, and recently attended a preliminary meeting of the association in Tulsa, Oklahoma, which was held for the purpose of planning the annual meeting to be held there in the spring.

Dr. William Matthews, radiologist, of Atlanta, Georgia will move to Rock Hill on February 1 to replace Dr. Murrah who was recently killed in an automobile accident. Dr. Matthews has been connected with Grady Hospital in Atlanta for some time.

Dr. C. R. Bittle of Charlotte, N. C. is now associated with Dr. W. Don Hiers in Branchville for the general practice of medicine.

Dr. Bittle, a native of Charlotte, is a graduate of Duke University and The Bowman Gray School of Medicine.

GRANTS MADE BY THE FORD  
FOUNDATION IN SOUTH CAROLINA:

\$126,400	Anderson County Memorial Hospital, Anderson
10,000	St. Mary's Hospital, Anderson
39,100	Marlboro County General Hospital, Bennettsville

38,200	Camden Hospital, Camden
27,400	Baker Memorial Hospital
247,500	Roper Hospital, Charleston
59,100	St. Francis Xavier Hospital
29,500	Good Samaritan Waverly Hospital, Columbia
56,300	Providence Hospital, Columbia
27,100	Ridgewood Tuberculosis Sanatorium, Columbia
134,500	South Carolina Baptist Hospital, Columbia
46,100	Conway Hospital, Conway
27,900	St. Eugene Hospital, Dillon
102,500	McLeod Infirmary, Florence
34,300	Saunders Memorial Hospital Clinic, Florence
28,300	Georgetown County Memorial Hospital, Georgetown
55,500	St. Francis Hospital, Greenville
35,500	Shriners Hospital for Crippled Children, Greenville
55,500	Self Memorial Hospital, Greenwood
50,000	Byerly Hospital, Hartsville
10,000	Joanna Memorial Hospital, Joanna
19,100	Kelley Memorial Hospital, Kingstree
36,100	Marion Sims Memorial Hospital, Lancaster
15,700	Berkeley County Hospital, Moncks Corner
27,100	Cannon Memorial Hospital, Pickens
13,200	Ridgeland Hospital, Ridgeland
39,000	St. Philip's Mercy Hospital, Rock Hill
31,300	Oconee Memorial Hospital, Seneca
22,100	Mary Black Memorial Hospital, Spartanburg
10,000	Community Hospital, Sumter
70,100	Tuomey Hospital, Sumter

## ANNOUNCEMENTS

At their annual convention in Hollywood, Florida, the South Atlantic Association of Obstetricians and Gynecologists announced plans to hold their 1957 convention in Charleston. The meeting has been scheduled for Feb. 6-8, 1957, at the Francis Marion Hotel.

Dr. Manley Hutchinson of Columbia, president-elect, will be installed next year.

Southeastern Division Regional Meeting of the International College of Surgeons at the Read House, Chattanooga, Tenn., April 30th and May 1st, 1956.

Psychiatric Seminar to be held March 23rd and 24 at Baruch Auditorium, Charleston, S. C.

The Seminar is designed primarily for the non-psychiatrically trained physician and students.

Speakers include—

Dr. Kenneth E. Appel, Prof. Psychiatry  
 Pennsylvania University Hospital  
 Subject not announced.

Dr. Robert A. Matthews, Prof. of Psychiatry, Head  
 Department of Psy. & Neurology  
 Louisiana State University  
 Subject, "DANGER—DON'T OPERATE"

Dr. Frank H. Mayfield  
 506 Oak Street, Cincinnati

Subject, "PREFRONTAL LOBOTOMY IN THE  
 TREATMENT OF MENTAL DISORDERS"

The Twenty-Fourth Annual Assembly of the Southeastern Surgical Congress will be held at The John Marshall Hotel, Richmond, Virginia, Monday through Thursday, March 12-15, 1956.

The program for the 1956 SPRING SESSION of The American Academy of Pediatrics is to be held in HOUSTON, April 16 to 19. The Academy group in Houston has developed a fine scientific program which offers many interesting subjects and speakers. A considerable number of the topics to be discussed have not been presented at recent Academy meetings.

The Virginia Society of Ophthalmology and Otolaryngology is sponsoring a convention cruise to Havana and Nassau on May 26 to June 2, 1956. Sailing from and returning to Norfolk, Virginia, the "Queen of Bermuda" will act as the hotel for the trip. Fare for seven days, \$165.00 and up per person. Make reservations with United States Travel Agency, Inc., Washington, D. C.

The Eighth Annual Convention of the International Academy of Proctology will be held in the Drake Hotel, Chicago, April 23-26. A well-rounded program covering major developments in proctology will be presented in papers, panel, symposium and motion pictures. Dr. William V. Branford of Dillon is counselor for South Carolina.

## MEDICAL OFFICE AND EQUIPMENT— NEWBERRY

A complete office, with tiled floors throughout, x-ray machine, diathermy machine, electrocardiograph, sterilizers, dark room, surgical equipment, laboratory, refrigerator, etc.

This building has reception room, consulting room, two examining rooms, dressing room, and waiting room for colored patients. Modern air conditioning throughout. Cost about \$35,000.00. Will rent for \$200.00 per month.

Originally owned by Dr. Reyburn W. Lominack, deceased, Newberry. For further information contact: Frank Lominack, 1403 Main Street, Newberry, S. C.

WANTED: Used Mayo Instrument Stand.  
 J. Hughey Crooks, M. D., Greenville, S. C.

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## DEATHS

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### DR. FREDERICK L. WEBB

Dr. Frederick L. Webb, 63, well known physician of Clinton, died suddenly January 10, 1956, after several years of declining health.

Dr. Webb received his high school education at Adel, Ga. and his pre-medical education at Mercer University. He graduated from Emory University, class of 1913, with an M. D. degree.

He has been connected with Whitten Village as chief medical officer and assistant superintendent for 25 years.

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### DR. J. WILSON RATLIFFE

Dr. J. Wilson Ratliffe, 60, well known physician of Anderson died January 31, 1956 of a heart attack.

A native of Anderson, Dr. Ratliffe received his education in local schools, attended Frazier Fitting School for boys, and took pre-medical training at the College of Charleston. Following his graduation from the Emory School of Medicine, he practiced medicine in Atlanta for 20 years prior to returning to Anderson.

During World War I he served as a surgeon in the U. S. Navy.

Dr. Ratliffe had practiced his profession in Anderson since 1938.

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### DR. LAWRENCE MANNING HOOK

Dr. Lawrence Manning Hook of Eastover died January 17, 1956.

He was a graduate of the University of South Carolina and in 1892 was graduated from the Maryland Medical College. He began his medical practice at Lugoff in 1893, moving to Eastover in 1894 where he practiced for 56 years. In 1943 he received his 50 year pin from the South Carolina Medical Association.

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### DR. RALPH K. FOSTER

Dr. Ralph K. Foster, 71, onetime athletic director at the University of South Carolina, died February 3, 1956 after three years illness.

A native of Lancaster, Doctor Foster was graduated from the University of South Carolina and the Medical College of South Carolina and practiced medicine in Timmonsville before coming to Columbia.

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### DR. THEODORE ELLIS BOWERS

Dr. Theodore Ellis Bowers, past president of the Medical Society of South Carolina (Charleston County) died February 19 in Charleston.

He was engaged in the practice of general surgery.

A native of Brunson, Dr. Bowers was born June 2, 1896. He attended schools in Brunson and pursued the pre-medical course at the College of Charleston.

He was graduated from the Medical College of South Carolina in 1919.

He had been for several years chief of the staff at St. Francis Xavier Infirmary.

Dr. Bowers was a fellow of the American College of Surgeons and a member of Phi Chi medical fraternity. He was a member of the South-eastern Surgical Congress, Medico Chirurgical Club, Charleston County Medical Society, S. C. Medical Association and was until 1946 associate professor of surgery at the Medical College of S. C.

He was a Mason and a member of Union Kil-winning Lodge 4.

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## ANNUAL MEETING TENTATIVE SCIENTIFIC PROGRAM SOUTH CAROLINA MEDICAL ASSOCIATION

WEDNESDAY, MAY 16, 1956

For the benefit of those Doctors who will not be attending the meeting of the House of Delegates, Scientific Films will be shown. (9:00 A. M. to 12:30 P. M.)

### SCIENTIFIC SESSION

3:00 P. M.—“Cerebral Palsy”—Meyer A. Perlstein, M. D., Chicago, Illinois

3:00 P. M.—“Treatment of Aneurysm and Occlusive Diseases of the Aorta”—Denton A. Cooley, M. D., Houston, Texas

4:30 P. M.—Panel: “The Uses and Abuses of ACTH and Contisone”

Moderator—D. F. James, M. D., Atlanta

Allergist—K. T. McKee, M. D., Charleston

Anesthesiologist—W. S. Howland, M. D., New York

Pediatrician—L. K. Diamond, M. D., Boston

### THURSDAY, MAY 17, 1956

9:45 A. M.—(Title to be announced)—Louis K. Diamond, M. D., Boston

10:15 A. M.—“The Induction of Labor”—C. Hampton Mauzy, M. D., Winston-Salem

11:15 A. M.—Panel: “The Newer Aspects of Blood Dyscrasis”

Moderator—C. DeSaussure, M. D., Charleston

Hematologist—C. S. Wright, M. D., Augusta

Surgeon—C. S. Welch, M. D., Albany

Gynecologist—C. H. Mauzy, M. D., Winston-Salem

Pediatrician—L. K. Diamond, M. D., Boston

2:15 P. M.—Panel: “Peripheral Vascular Disease”

Moderator—H. L. Brockman, M. D., Spartanburg

Internist—W. T. Foley, M. D., New York

Surgeon—D. A. Cooley, M. D., Houston

Radiologist—H. S. Pettit, M. D., Charleston

4:00 P. M.—Clinico-Pathologic-Therapeutic Conference

Moderator—F. E. Kredel, M. D., Charleston

Surgeon—C. S. Welch, M. D., Albany

Internist—W. T. Foley, M. D., New York

Radiologist—H. S. Pettit, M. D., Charleston

Pathologist—H. R. Pratt-Thomas, M. D., Charleston



## BLUE CROSS . . . BLUE SHIELD



A situation has arisen in Michigan, the home state of the second largest Blue Cross Plan in the Country, which has interesting overtones and serious implications. Michigan Hospital Service in November applied to the State Insurance Commissioner for permission to raise its rates 23-1 10 per cent. It was the intention of the Plan to guarantee the resulting rates for the next ensuing two years.

The Plan gave as the reason for its petition for an increase in rates the fact that it was rapidly approaching insolvency, and that it had in 1955 paid out in benefits to members 95.5 per cent of all payments into the Plan during the calendar year. It was predicted that by February 1, 1956, a deficit of 1.6 per cent would develop, and that by March 1 the deficit would be between 2 and 2.5 per cent.

The Insurance Commissioner allowed a compromise increase of 15 per cent. He stated in connection with his action in denying the full increase, but in allowing some increase, that protests against the increase and requests that it be allowed were addressed to the Governor and to himself. The Governor in turn expressed sincere regret for the need of any increase, and stated that he would appoint a commission to study the question of rates and benefits under prepaid hospital and medical care plans.

The Commissioner stated further that problems of over-utilization, faulty utilization, and abuses had been recognized as factors making necessary substantial increases in hospital costs to Blue Cross subscribers. He stated that the problems were related to the use of Blue Cross Plans by doctors, hospitals, and the public. He allowed the 15 per cent increase because he felt that it was necessary to protect the solvency of the Plan and its hospital members.

In announcing his decision to appoint a commission to study the problem of prepaid hospital insurance, the Governor said, "It is obvious that something must be done to check the upward trend of increase in rates."

It was his feeling that if such a check were not provided, prepaid hospital service was likely to become out of reach of the people who need it most. It was his feeling that if that should happen, the demand for public compulsory health insurance will certainly become overwhelming.

Walter Reuther protested vigorously against any increase in Blue Cross rates. He charged that Blue Cross officials and affiliated hospital managements have failed to pursue policies which would hold down costs and which would make rate increases un-

necessary. He demanded a full-scale fundamental investigation by a commission of the problems of operation of Blue Cross, and asked that the commission recommend remedial action. He said further that a laxity has been indicated on the part of doctors in sending patients to hospitals. It was his belief that there was faulty use of hospital service in 14 per cent of hospital admissions.

Another labor leader stated that his groups opposed any increase in rates, and that such an increase created a serious social question which might bring a demand for a state health program. He demanded that hospitals and the medical profession do their share in holding down hospital costs.

Several things in connection with the situation in Michigan are interesting to South Carolinians. The problems which brought about the difficulties of the Michigan Plan are present in our State, and protests against increasing rates have been widespread. They have not yet been expressed through leaders of organized groups, and they have not been addressed to any great extent to officials of our State Government; however, such protests may come later.

In South Carolina many of us recognize that abuses similar to those referred to in the Michigan discussions also exist here. Some of us suspect that neither the doctors nor the hospitals are uniformly and honestly attempting to hold down hospital costs. Finally, many South Carolina doctors foresee that failure of Blue Cross and Blue Shield, either because of too restricted service or because of too high rates, to give our people care which they need at a cost which they can pay, will result in a demand for governmental intervention, and ultimately for governmental medicine.

J. Decherd Guess, M.D.  
Medical Director



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## WOMAN'S AUXILIARY

### SOUTH CAROLINA MEDICAL ASSOCIATION

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President: Mrs. C. R. May, Jr., Bennettsville, S. C.

Publicity Secretary: Mrs. N. D. Ellis, Florence, S. C.

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#### INVITATION TO CONVENTION

Ocean Forest Hotel, Myrtle Beach, S. C.

May 15, 16, and 17, 1956

A most cordial invitation to attend the 31st Annual Convention is extended to the wives of all members of the South Carolina Medical Association—you do not have to be an Auxiliary member.

Mrs. Mason G. Lawson, President of the Woman's Auxiliary to the American Medical Association, will be the guest speaker at the luncheon, Thursday, May 17, 1956; and Mrs. John J. O'Connell, President of the Woman's Auxiliary to the Southern Medical Association, will bring greetings.

Mrs. J. K. Owens, Jr., Convention Chairman, and Mrs. Wayne Reeser, Co-Chairman, together with the Presidents of the hostess Auxiliaries, Mrs. Fritz Johnson, Pee Dee Auxiliary and Mrs. R. L. Ramseur, Horry Auxiliary, are planning an entertaining and interesting program. Golf and bridge will be planned for your pleasure. The Auxiliary is sponsoring a fashion show for the Wednesday night entertainment for our doctor husbands and a real surprise is in store for all of us. Baby sitters will be available—so bring your whole family and make it a real vacation at the Convention.

Mrs. C. R. May, Jr., President  
Woman's Auxiliary to the S. C.  
Medical Association

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#### GOVERNOR TIMMERMAN ENDORSES OBSERVANCE OF NURSE RECRUITMENT WEEK

The following is a copy of a letter from Gov. Timmerman to Mrs. E. Bryan Michaux, State Nurse Recruitment Chairman of the Woman's Auxiliary:

State of South Carolina Executive Office  
Columbia  
Jan. 17, 1956

Mrs. E. Bryan Michaux  
Nurse Recruitment Chairman  
South Carolina Medical Auxiliary  
Dillon, South Carolina

Dear Mrs. Michaux:

Despite continuing advances in the field of medical science, there is still a vital need for nurses. I still believe there is no calling more important to which the young women of our State could aspire..

Your organization is to be congratulated for presenting this need to the public and in encouraging young women to enter the nursing profession.

With all good wishes, I am,

Sincerely yours,

George Bell Timmerman, Jr.

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#### WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION—ANNUAL MEETING

The thirty-third annual convention of the Woman's Auxiliary to the American Medical Association will be held in Chicago, June 11 to 15, 1956, with headquarters at the Conrad Hilton Hotel. Mrs. Leonard J. Houda and Mrs. Maurice M. Hoeltgen of Chicago are chairman and co-chairman of the committee on arrangements.

Registration will open on Sunday, June 10 and continue through Thursday. Pre-convention committee meetings will be held Saturday and Sunday, June 9 and 10.

For hotel reservations, write to the reservation manager of the Conrad Hilton. A block of rooms has been set aside for the Woman's Auxiliary, but reservations will NOT be accepted after APRIL 15, 1956.

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In a "Secretary's Letter" from Dr. George F. Lull, Secretary-General Manager, American Medical Association, he quoted from a statement made by A.M.A. President Elmer Hess:

"The American Medical Association has recognized the financial needs of the nation's 81 approved medical schools for a long time, and has played a big role in trying to relieve the burden. The A.M.A. has sponsored and financially supported the American Medical Education Foundation since its inception in 1951. Since then, this Foundation has raised nearly five million dollars from the physicians of this country for the medical schools.

"The \$90 million Ford grant will help immeasurably. More important is the source from which these funds are derived. They are the fruits of free enterprise, and, obviously, contributions of this magnitude from private sources take the pressure off government and help relieve demands for more and higher taxes."

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## BOOK REVIEWS

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*PHYSICIANS FEDERAL INCOME TAX GUIDE*  
—1956 Edition by Campbell, H. J. Liberman, J. B.,  
and Shereff, H. D. Channel Press — Price \$2.50.

This is a book which appears to cover well all the points which might require clarification in the preparation of the physicians income tax.

*CARDIAC DIAGNOSIS, A PHYSIOLOGIC APPROACH* by Robert F. Rushmer, M. D., W. B. Saunders Co., Philadelphia, 1955, 447 pages. Price \$11.50.

The traditional cardiology textbook is written predominantly from the clinical point of view. This book, as its subtitle indicates, has an essentially pre-clinical orientation. It is, in a way, a synthesis of knowledge about the structure and function of the heart in health and disease, with particular regard to the newer developments in instrumentation which are assuming increased importance in cardiac diagnosis.

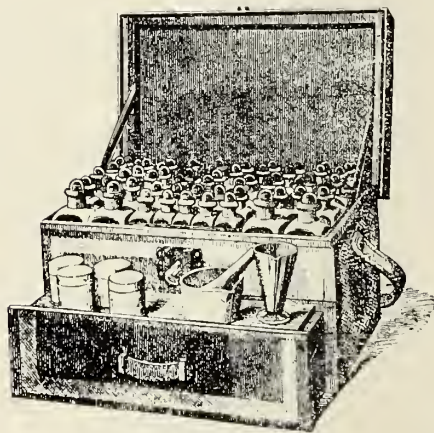
Dr. Rushmer is Associate Professor of Physiology and Biophysics at the University of Washington Medical School. As a biophysicist he is one of a small but growing group of scientists who are profoundly influencing medicine—and perhaps the cardiovascular field in particular—through their application of man's knowledge of physics to a study of man himself. There is, of course, no substitute for sound clinical experience. However, when one considers the advances in our knowledge of cardiac function brought about through the electrocardiogram, specialized roentgenographic procedures, cardiac catheterization techniques and a host of new electronic devices for measuring pressures, sounds, oxygen saturation, blood flow and many other physiologic variables, the contributions of instrumentation are obvious. Dr. Rushmer discusses all these instruments as to their types, their basic principles, and their applications in cardiovascular diagnosis. Some of his own contributions are included notably the "sonvelograph" for measuring heart sounds, and a small gauge which he implanted in the myocardium of dogs to study ventricular activity. In addition, the author has very carefully reviewed the work of others and has compiled a bibliography which is timely and comprehensive. Rather than being a highly technical discussion of instruments and cardiovascular dynamics, this book is written in a clear and simple manner with some excellent mechanical analogies which virtually dramatize some of the more complex physiological mechanisms such as those regulating circulation. And there are many points of very practical value not found in most clinical textbooks: e.g., sources of error in measurement of blood pressure by the ordinary sphygmomanometer. Even discussions of the newer surgical procedures on the heart are included. The illustrations are particularly well done and abundant, adding much clarity to the subject matter.

The book is divided into 5 main sections: the function of the normal cardiovascular system, regulatory mechanisms, congestive heart failure, specialized diagnostic procedures, and a general discussion of diagnosis of cardiac disease. The last section contains an interesting chapter advocating the diagnosis "possible heart disease" as a useful category for those cases manifesting questionable or atypical findings which merit further observation without the stigma of an actual diagnosis of heart disease.

Electrocardiography is dealt with in considerable detail incorporating vectorcardiography to illustrate some of the basic principles. Congenital heart disease is approached logically through a consideration of embryologic development; features of the more common congenital lesions are well summarized.

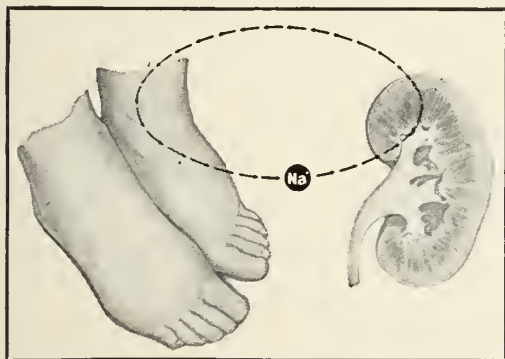
Throughout this book a clinician is apt to get the feeling that there are valves, blood vessels, pressures, murmurs and electrical phenomena, but no real patients. Those of us who learn to rely so heavily on the patient's history and innumerable "clinical impressions" may not feel entirely at home here. Perhaps "Cardiovascular Physiology" would be a more appropriate title than "Cardiac Diagnosis", although the book is much more than that. As the author states, it is a text "intended for students of medicine in the broadest sense; from first year medical students to experienced physicians who are interested in applying basic concepts to the recognition of disease processes". Dr. Rushmer's new book does much to make these concepts both understandable and useful to clinicians.

—Dale Groom, M. D.

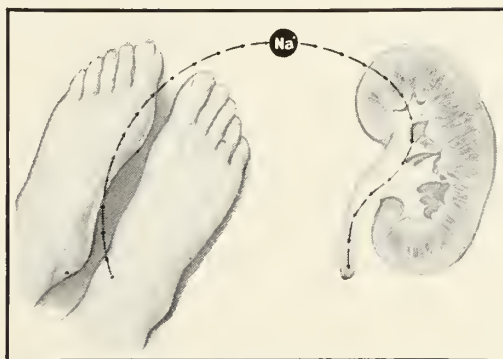


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## SCISSORISMS

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### THE QUACK

Long has he been of that amphibious Fry,  
Bold to Prescribe, and busie to Apply.  
His Shop the gazing Vulgar's Eyes employs  
With foreign Trinkets, and domestick Toys.

Here, Mummies lay most reverently stale,  
And there, the Tortois hung her Coat o'Mail,  
Not far from some huge Shark's devouring Head  
The flying Fish their finny Pinions spread.  
Aloft in Rows large Poppy Heads were strung,  
And near, a sealy Alligator hung.  
In this place, Drugs in musty Heaps decay'd,  
In that, dri'd Bladders, and drawn Teeth were laid.

An inner Room receives the numerous Shoals,  
Of Sueh as pay to be reputed Fools.  
Globes stand by Globes, Volumns on Volumns lie,  
And Planetary Schemes amuse the Eye,  
The Sage, in Velvet Chair, here lolls at Ease,  
To promise future Health for present Fees.  
Then, as from Tripod, solemn Shams reveals,  
And what the Stars know nothing of, foretels.

One asks, how soon Panthea may be won,  
And longs to feel the Marriage Fetters on.  
Others, convince'd by melancholy Proof,  
Enquire when courteous Fates will strike 'em off.

Some, by what means they may redress the  
Wrong,  
When Fathers the Possession keep too long.  
And some wou'd know the Issue of their Cause,  
And whether Gold can solder up its Flaws,  
Poor pregnant Lais his Advice would have,  
To lose by Art what fruitful Nature gave:  
And Portia old in Expectation grown,  
Laments her barren Curse, and begs a Son.  
Whilst Iris, his Cosmetiek Wash would try,  
To make her Bloom revive, and Lovers dye.  
Some ask for Charms, and others Philters chuse,  
To gain Corinna, and their Quartans lose.  
Young Hylas, botch'd with Stains too foul to name,  
In Cradle here renews his Youthful Frame;  
Cloy'd with Desire, and surfeited with Charms,  
A Hot-house he prefers to Julia's Arms.  
And old Lucullus wou'd th' Arcanum prove,  
Of kindling in cold Veins the Sparks of Love.

Sammuel Garth, *The Dispensary*.

There was discussion of the views expressed at the June 7, 1955, meeting of the National Society's medical consultants, at which time the questions were raised: In view of the current incidence of gonococcal ophthalmias, is it still necessary to use a prophylactic agent in the eyes of newborns? If it is necessary, should state laws permit the use of antibiotics as equivalent to silver nitrate solution?

There was considerable discussion of many studies that have been made on the subject. Regret was expressed that so few studies included careful bacteriological examinations of smears and cultures of conjunctival secretions, and even fewer of cultures of the mother's cervix at the time of delivery. It was believed that many of the reports in the literature declaring that various antibiotics are effective in the prophylaxis of ophthalmia neonatorum actually are difficult to evaluate because of lack of adequate bacteriological studies.

Those present recognized that in some hospitals with excellent nursing service and with a low rate of genital tract infection in the mother at the time of delivery, various kinds of preparations might be substituted for silver nitrate. Yet there are hospitals in North America in which there still is a significant incidence of gonorrheal infection:

Allen and Barrere reported 8 cervical cultures from 531 expectant mothers positive for *N. gonorrhea* (1½%) compared with 20 of 500 positive (4%) ten years earlier.

Ormsby reported 5 cases of gonococcal ophthalmia among 2,020 infants who received no prophylaxis at birth in a research study.

Davidson, Hill and Eastman reported 7 positive cervical cultures at Johns Hopkins, with two babies having positive eye cultures, among 13,404 births.

Watts and Gleich reported 30 cases of g.c. ophthalmia at Harlem Hospital among 12,417 infants between 1943 and 1947, despite use of silver nitrate and sulfathiazole prophylaxis. These cases might represent human errors in proper administration of prophylaxis.

Mention was made of the problem of home deliveries and the problem of planning for proper prophylactic methods and for thorough examination of the eyes of newborn infants in the many small public and private hospitals of the United States, where it is difficult to maintain adequate nursing service 24 hours a day. It was felt that procedures which might be suitable for the prevention of ophthalmia neonatorum in a modern, well-equipped hospital might be inappropriate in the smaller hospitals. Yet, from the point of view of boards of health, it is not practical to pass a

regulation permitting one kind of procedure in the more "elite" hospital, and insisting upon a different prophylactic procedure in other hospitals. However, it was agreed that teaching hospitals should not only be permitted but should be encouraged by state boards of health to conduct research, under proper safeguards, with a variety of preventive procedures in the hope that some day some procedure would be developed that would be applicable to all hospital situations.

It was agreed that sufficient research has been done to support the widely held clinical impression, based upon experience with the use of silver nitrate in the eyes of millions of babies, that both one and two per cent silver nitrate solutions are entirely safe.

Concerning the efficacy of silver nitrate, Dr. Allen cited the Iowa study which showed that either two per cent silver nitrate instilled once, or one per cent solution instilled twice, gave effective prophylaxis.

There should be periodic examination of the genital tracts of expectant mothers, with early diagnosis and treatment of any possible infection found. Immediately after birth, the infant's eyelids should first be wiped with cotton or gauze, then pried open and silver nitrate instilled. The lids should be held apart manually for half to one minute to permit the prophylactic to act; otherwise, the baby will squeeze the lids together and expel whatever drug is used. If the one per cent solution is used, Dr. Allen felt that another drop should be instilled in each eye, with similar technique, after the baby has been bathed and dressed—approximately three hours after delivery. In all cases where silver nitrate has been properly applied, Dr. Allen said, there will be a chemical conjunctivitis lasting 24 to 48 hours with redness and sometimes a slight purulent discharge; this should be regarded as an indication that the prophylaxis has been done correctly, that desquamation of the superficial layer of epithelial cells has taken place, and that any possible infectious agents probably are enmeshed in the slough. If the babies do not show such a chemical irritation, one should check on the instruction of the nurses doing the prophylaxis. It was pointed out that the chemical irritation ordinarily lasts only 24 to 48 hours, that redness or a purulent discharge 3 to 6 days after birth most likely is caused by bacterial organisms, and that conjunctivitis occurring more than 6 days after birth probably is viral in nature (inclusion blennorrhea) or caused by bacteria entering the eyes sometime subsequent to the time of birth.

Penicillin in the conjunctival sac undoubtedly is bacteriostatic rather than bactericidal. Therefore, its action is effective only for a minute or so, until the penicillin has been washed away by tears. Since it produces no chemical irritation, penicillin does not bring about the development of desirable tearing and desquamation which would aid in the expulsion of possible invading organisms. Therefore, if penicillin (or other antibiotics) were to be used, the regulation should specify not only the strength and the vehicle,

but the number of times the application should be repeated during the hospital stay. Franklin's study in Memphis indicated the need for four instillations.

Although not many strains of gonococci resistant to penicillin have been found in the United States, such strains are more common elsewhere and may be brought in. Many hospitals discharge newborn babies three days after birth—in such cases the incubation period of ophthalmia neonatorum has not passed. Trouble could well develop and not be recognized until the ophthalmia was actively destroying the cornea.

There was some question by the oculists present whether possibly the recurrent waves of enthusiasm on the part of some physicians to be permitted to use antibiotics were influenced not by research findings on the best possible agent as prophylaxis against the bacteria that produce ophthalmia neonatorum, but rather by feelings that the antibiotics are new, that their patients expect them to use antibiotics for everything, and that if they use silver nitrate they might be said to be "horse and buggy" doctors. Some patients with an upper respiratory infection stop at a physician's office with the remark, "I decided I'd better have you give me a shot of penicillin"—instead of permitting the physician to decide whether such therapy is actually desirable.

The two unexplained deaths following injection intramuscularly of 50,000 units of penicillin in one series of 9,241 newborn babies show that this mode of administration is dangerous, in contrast to the safety of silver nitrate solution, and therefore should not be permitted routinely.

*Conclusion*

It was the consensus that properly equipped research centers should be permitted to investigate the possible efficacy of various antibiotics in the prophylaxis of ophthalmia neonatorum, the strength needed and the optimum mode of administration, and that in such studies cultures as well as smears should be made of any exudate found. Studies of smears and cultures from the cervixes of gravid mothers should be encouraged.

In the meantime, it was felt that there is no urgency to abandon silver nitrate solution as the preferred prophylactic agent, and that therefore state boards of health should resist impulsive efforts to change state laws or regulations.

Respectfully submitted,  
James H. Allen, M.D.  
Conrad Berens, M.D.  
Thomas R. Hood, M.D.  
Hugh L. Ormsby, M.D.

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## INTESTINAL OBSTRUCTION IN INFANCY

A PANEL DISCUSSION

**D**r. Wright: The infant suffering from an intestinal obstruction presents his attending physician with an emergency which requires prompt diagnosis and skilled surgical attention if his life is to be saved. In a small number of cases expectant management may be followed by spontaneous dissolution of the obstructing mechanism. However, the usual penalty for delayed intervention is progressive deterioration of the infant as a surgical risk because of advancing dehydration, electrolyte imbalance, shock, or loss of viability of an obstructed portion of gut.

Nearly all types of infantile obstruction can be traced back to an anomalous development of the intestinal tract or its surrounding parietes. Exact pre-operative diagnosis of the obstructing mechanism is not always possible, and indeed it is frequently unnecessary in order to justify exploratory laparotomy. However, the surgeon who has the temerity to enter such an abdomen should be conversant with the many varieties of disturbed embryologic development which can foster obstruction. Of these many bizarre and fascinating entities, we shall have time to consider only a few. They may be grouped according to the usual age at which they declare themselves.

### The Newborn Period

Imperforate anus, the commonest obstructing anomaly, is ordinarily apparent immediately at birth upon careful inspection. It occurs with a frequency of one case in about 2000 to

3000 births. This anomaly results from faulty coupling of the distal intestine, or hindgut, with the invaginating anal canal, or proctodeum, during the eighth to tenth week of embryonic life. Several varieties of anomaly may occur: (1) The hindgut may be completely lacking in any communication to the outside. (2) In the female it may empty by a fistulous tract into the vagina. (3) In the male it may have a fistulous communication into the bladder or urethra. (4) In either sex it may open through a fistula somewhere on the perineum other than the normal anal opening. In the first three instances the obstruction is not complete since meconium and gas may be able to ooze out of the urethra, vagina or perineal fistula. Such decompressing vents do not in general eliminate the necessity for early surgical intervention. Rarely the anus is properly located and canalized and the presence of obstruction is temporarily overlooked until the infant fails to pass meconium and becomes distended. Closer inspection of the rectum may then disclose a failure of the hindgut and proctodeum to merge high in the pelvis, or persistence of an anal membrane close to the orifice.

Only the persistent anal membrane is readily corrected. Cruciate incision of the transparent obstructing diaphragm and periodic dilatation of the anal canal permanently relieve the obstruction. In all other types of anal anomaly the surgeon is faced with two difficult decisions. First, he must decide whether to attempt immediate complete correction or whether to delay operative procedures until the child is older, meanwhile using a colostomy or pre-existing fistula as a temporary outlet.

Presented at the Meeting of the South Carolina Medical Association, May 12, 1955, Charleston, S. C.

This is an edited transcription of a panel discussion by Dr. Richard B. Josey, Columbia, (Moderator), Dr. Howell Wright, Chicago, Dr. Mark Ravitch, New York, and Dr. Merrill Sosman, Boston.

Secondly, if intervention is deemed necessary he must decide whether he dare confine his activities to reconstruction from below, or whether he must also enter the abdomen. In deciding the route of attack, valuable help may be obtained from the radiologist who can often give an exact statement of the position of the hindgut and its distance from the perineal floor. Delayed operation cannot be justified if there is a fistulous communication with the urinary tract since this makes the child vulnerable to chronic urinary infection. Such fistulas must be disconnected, preferably through an abdominal approach. Dr. Ravitch will no doubt comment upon the wisdom of delaying operation when a vaginal or perineal fistula is large enough to permit evacuation of the bowels.

Atresia of the esophagus, usually with tracheo-esophageal fistula, is not externally apparent at birth but produces symptoms within the first few hours. Even before the infant receives his first feeding an excessive amount of mucus is observed in the mouth and pharynx and auscultation of the chest may reveal moist rales scattered through the lung fields. When liquid is offered by mouth the mild sputtering is at once converted into an attack of strangling, coughing and cyanosis. These symptoms are of course due to the accumulation of secretions or feedings in a pharynx which cannot discharge them into the stomach through the esophagus but instead permits them to overflow into the larynx. In some instances the anomaly is such that the swallowing mechanism carries them directly into the trachea through an abnormal communication. Once the diagnosis of esophageal atresia is suspected, it is readily confirmed by exploration with a small, soft rubber catheter which will consistently fail to reach the stomach. Radiologic examination following the ingestion of a small amount of iodized oil demonstrates the type of location of the anomaly. Barium should not be used for this purpose since its accumulation in the lungs is undesirable.

The successful management of an infant with esophageal atresia and tracheo-esophageal fistula is a difficult technical feat. Few surgeons are able to accumulate a background

of experience with the operation because the incidence (perhaps 1 in 4000 live births) is relatively low, and because a significant fraction of such infants are premature or have associated anomalies which make them poor surgical risks. Whenever possible attempts at repair should be undertaken by a surgeon who has had some previous experience with the problem.

Unlike the congenital obstructions which occur at the ends of the intestinal tract, anomalies of the mid-portion are varied in their anatomy and symptomatology and lend themselves to confusion with other infantile disorders. Some of these anomalies may remain asymptomatic until later infancy or even childhood. Although radiologic examination is not always able to yield an exact anatomic diagnosis it is essential in confirming the presence of an obstruction.

Atresia of the intestine invariably produces symptoms of obstruction within the first two days of life. At about the fifth week of fetal development the intestinal lumen is completely occluded by cords of proliferating epithelium. Normally the gut is recanalized by the tenth fetal week. Imperfect development may leave an internal diaphragm across the lumen or a solid cord connecting areas of normal intestine, or an area of complete discontinuity. Atresia is most common in the ileum; next most common in the third portion of the duodenum; and rare at other levels of the intestine.

Duodenal atresia produces early symptoms, usually on the first day of life, which consist of progressively more severe vomiting of bile-stained fluid with abdominal distention limited at first to the upper half of the abdomen. When the atresia is located in the ileum the symptoms may be slower in onset and the abdominal distention more generalized. The stools are usually small, infrequent, and lacking in squamous epithelial cells as demonstrated by Farber's test.

Stenosis of the intestine is due to the same embryologic fault of lesser degree resulting in a constriction but not a complete obliteration of the continuity of the lumen. Unlike atresia it is more common in the duodenum than the ileum and does not necessarily produce symp-

toms immediately after birth. Duodenal stenosis may lead to intermittent obstruction during early infancy. Ileal stenosis may go unrecognized until the constricted lumen becomes plugged with a fecal impaction.

Meconium ileus occurs in the immediate newborn period as the first symptom of cystic fibrosis of the pancreas or muco-viscidosis. Due to the abnormality of pancreas and intestinal glands, the meconium formed during fetal life is so thick and tenacious that it cannot be moved along the intestinal tract. It blocks the lumen by damming up at the ileo-cecal valve. Symptoms are indistinguishable from those of lower intestinal atresia, but the radiologic appearance of the abdomen may offer a suspicion of the correct diagnosis. The problem of surgical relief is, to say the least, a sticky one. If the infant's life can be saved by relieving the obstruction he will require prolonged dietary supervision of his underlying disease. Occasional normal newborns produce thick meconium which temporarily blocks the intestine and leads to a doughy distention of the abdomen. Rectal dilatation with the finger or a small enema usually suffices to initiate a forceful discharge of meconium. Such maneuvers should always be tried if meconium ileus is suspected.

Malrotation of the intestine is a complex anomaly which occurs with about the same frequency as atresia or stenosis. It results when the mid-gut loop of intestine which has been pushed into the base of the umbilical cord during the fifth week of fetal life makes a faulty entrance at the time of its return into the abdominal cavity around the tenth fetal week. If the cecum fails to reach its normal position in the right lower quadrant and fuse there with the posterior abdominal wall two potentially dangerous conditions may result. The cecum may be free on a mesentery or it may be abnormally adherent to the duodenum by direct application, or from a mid-line position it may be attached by peritoneal bands which run across the surface of the duodenum. Partial or complete obstruction of the duodenum may result from the pressure of the cecum or bands attached to it. At the same time, the root of the mesentery of the small

intestine is formed upon an abnormally short base which may permit twisting of the whole small intestinal loop into a volvulus. If unrelieved, mesenteric thrombosis or gangrene of the bowel may create an irreversible situation.

The symptoms of malrotation are similar to those of duodenal stenosis or atresia. They may begin immediately after birth, late in the neonatal period, or may be delayed until later infancy. If the correct diagnosis is suspected, x-ray visualization of the cecum may afford the surgeon some warning of the confusing anatomic situation which he will find when he opens the abdomen.

Annular pancreas is an uncommon anomaly in which the pancreas encircles the duodenum and produces partial obstruction. Symptoms appear in the newborn period.

During the newborn period a few conditions may be confused with intestinal obstruction. Careful examination and observation is usually sufficient to make a differentiation and proper radiologic study is nearly always conclusive. Many babies will vomit after birth because of excessive mucus production. Such infants seldom vomit bile and their symptoms usually yield to gastric lavage. Vomiting from intracranial damage or incipient hydrocephalus is likewise non-bilious and can be distinguished by the associated clinical manifestations. Abdominal distention due to megacolon, tumor or anomaly of the urinary tract is not likely to offer confusion and can easily be differentiated by radiologic studies. The infant who has not been under continuous observation since birth may offer a difficult problem when vomiting, abdominal distention, dehydration and fever are present as manifestations of a severe infection such as sepsis, meningitis or pneumonia.

#### Later Infancy

In addition to the conditions already mentioned as able to produce intestinal obstruction after the neonatal period, there are a number of other anomalies which may occasionally be implicated. These include internal herniations, obstruction from adhesive bands or persistent omphalomesenteric duct, and compression of the intestine by duplications of the bowel or

by omental or mesenteric cysts. None of these conditions is frequent enough to warrant extended discussion.

During the second and third months of life, hypertrophic pyloric stenosis may appear and produce partial intestinal obstruction. It is well enough to be excluded from consideration here. In like fashion the diagnosis and management of incarcerated inguinal hernia is too obvious to require more than passing mention.

The most important form of obstruction during later infancy is intussusception because of its incidence and the frequency with which the diagnosis is overlooked and the great importance of prompt intervention. From about 3 to 4 months of age on through the first two or three years of life there is a significant incidence of this disorder. It occurs in well nourished, previously healthy infants and is usually not dependent upon the presence of inciting abnormality of the intestine. In all but a small number of cases the initial point of invagination is at the ileo-cecal valve. The early symptoms are subtle rather than dramatic. The mother usually notices periodic fretfulness, unexplained whimpering or transient pallor with periods of normal behavior between. Neither vomiting nor abnormal stools are early symptoms of the disorder. The periodic fussiness or silent blanching is much the most important early clue. Once the bowel is firmly engaged there will be no further passage of gas although one or more normal appearing stools may be discharged. The characteristic bloody mucus is not likely to make its appearance until the intussusception has been engaged for several hours. If the diagnosis is not made early, deterioration of the patient's condition and of the viability of the bowel may be signaled by fever, vomiting or progressive lethargy.

Physical examination of the child may be difficult because of the recurrence of abdominal discomfort. Characteristically the abdomen is relaxed, non-tender and easy to palpate so long as the child is quiet. The progression of the head of the intussusception follows the course of the colon. Palpation of the right lower quadrant often yields an empty sensation due to the fact that the cecum has de-

parted from its accustomed site. A sausage-shaped mass is usually identifiable in the upper abdomen somewhere between the hepatic and splenic flexures of the colon. Digital examination of the rectum should be made in search of the characteristic currant jelly stool or direct palpation of a far-advanced intussusception.

Barium enema should be carried out as an emergency procedure whenever intussusception is suspected. If an inexperienced radiologist is making the examination it is wise to insist that films be taken if the examination is considered inadequate because of the presence of fecal masses in the colon. More often than not such fecal masses turn out to be the head of an intussusception which would not be identified at fluoroscopy. I am sure that the other panel members will have more to say about this procedure. Dr. Ravitch incidentally is a surgeon who champions nonsurgical management of this disorder.

#### Pre-operative Preparation and Post-operative Management

In the newborn period vitamin K should be administered routinely to counteract the normally low prothrombin level of the infant. Pre-operative fluid administration is not essential when the diagnosis has been made early. However, most surgeons prefer a continuous intravenous infusion to be started before operation since it is likely to be necessary post-operatively and provides a quick method of administering blood or plasma if the need arises during the operation. The danger of overdosing the small infant by the intravenous route must be continually kept in mind. Even when there has been significant fluid loss before operation it is probably unwise to exceed a daily intravenous intake of 75 ml. per pound of body weight. Appropriate hourly rates should be calculated and maintained. If much blood or plasma is used, somewhat lower maximum doses are desirable.

Pre-operative lavage and decompression of the stomach is desirable to forestall aspiration. In many cases continuous gastric suction will be required after operation as well.

To minimize the danger of infection, administration of penicillin and streptomycin or

of a broad spectrum antibiotic is usually desirable for a few days after operation.

Post-operative feeding must be regulated according to the nature of the operative procedure undertaken and the viability of the bowel. Periods of starvation will seldom extend beyond a few days. Unless previously debilitated, the infant can readily tolerate a week of starvation if his fluid and electrolyte balances are maintained and are supplemented with plasma periodically.

*Dr. Sosman:* Dr. Wright very kindly sent me a copy of his paper in advance of this meeting and I had the opportunity to go over it. I have selected some slides to amplify or exemplify some of the points he has made which are quite important. An explanation of the importance of intestinal obstruction in children I think is very nicely defined by Dr. John Caffey the pediatrician at the Babies' Hospital for the Columbia Medical Center and radiologist, a very good combination to advance science and to disseminate learning. For all practical purposes he is a full-time man in pediatrics doing radiology. In his magnificent book which I can recommend as a good book for pediatricians as well as general practitioners, radiologists and surgeons he makes the following statement: "There is no area of pediatric responsibility where the patient benefits more from early accurate diagnosis, or where he suffers more from late or inaccurate diagnosis, as in congenital obstruction of the small intestine." I think that covers the urgency of the situation. Now the radiologist is, or may be, quite an important man in the team trying to recognize and correct the intestinal obstruction. At times the radiologist is the most vital man; he may demonstrate immediately where the obstruction is and have a good idea as to what causes it. In other cases he may be of no help at all. In some cases his x-ray examination may be entirely negative and the pediatrician and surgeon will have to go on the clinical signs. As a rule if the obstruction is complete the x-ray is almost always quite definite, the findings are pathognomic. Barium is not necessary in a case like that. If obstruction is incomplete, as it is in many cases, it may exhaust all of the radiologist's resources

trying to decide if there is any obstruction and if there is, where is it, and of what type will it probably be. There a man of considerable experience is required, as Dr. Wright indicated, to do the right kind of examination, to know what to look for, and how to do it. In our experience in Boston, the causes of intestinal obstruction agree quite well with those of Dr. Wright. The great majority are of congenital origin, particularly in the stage of infancy. Regional ileitis or cicatrizing enteritis, whichever you want to call it, is definitely on the increase. Granulomatous enteritis might be a better name for it; whereas ileo-cecal tuberculosis, which used to be a very important cause in young children, has almost disappeared. We have not seen one for a long time. The problem of surgery versus the barium enema in the reduction of intussusception I am sure is going to cause a great deal of excitement in a few minutes. I shall leave the introduction of the subject, as well as the enema with Dr. Wright. Now may I show you the slides and exemplify some of the points which Dr. Wright has already mentioned.

This first case is one of atresia of the esophagus where the atretic segment ends abruptly at this point with a great deal of dilatation. About 30% of those are complete with no by-pass. The majority, about 70%, have a fistula into the trachea. Not infrequently there is a second fistula going from the trachea back into the lower segment of the esophagus, which may allow air to get into the intestine so that the sign of complete absence of air in the intestinal tract, the sign of complete atresia, may not be present.

The next slide is an example of obstruction lower in the esophagus from a bit of misplaced gastric mucosa. This is about the only time we see peptic ulcers in children, particularly in very young children. This child had a gastric ulcer in a bit of gastric mucosa in the lower esophagus and intermittent obstruction due to the spasm from the ulcer.

The next slide demonstrates classical pyloric obstruction, the major symptoms of which occur, as a rule, in the third or fourth week. It is rather interesting that they do not come on sooner. I would like to ask Dr. Wright or Dr.

Ravitch to give us a word on that when Dr. Ravitch's turn comes up. This condition is quite difficult to differentiate at times from a duodenal obstruction, that is the point of obstruction may be hard to demonstrate. A duodenal atresia may have all of the air in the stomach, such as the next slide, a congenital duodenal atresia all the air there is in the stomach and we are unable to decide whether the obstruction is at the pylorus or beyond the pylorus in the duodenal loop. It is not really important because the proper treatment is immediate surgery and we know about where the obstruction is, either at the pylorus or just beyond it. We have seen several cases of annular pancreas which causes a similar appearance to this, but on barium administration a small amount will usually get in and outline the obstructing band itself.

The next case is one of malrotation with the volvulus which Dr. Wright mentioned. We see here the pyloric canal and duodenum and the rotation is very beautifully demonstrated by those spiral loops of the small bowel, showing how it is twisted around the root of the mesentery as it rotated.

The next slide shows one of the common causes in our experience of intestinal obstruction, not complete obstruction, but intestinal symptoms due to partial obstruction. These are congenital duplications of the intestinal tract. It is a very common condition and, like anything else in medicine, the more we look for it, the more we see it. We have had several hundred cases demonstrated and identified at the Children's Hospital in Boston and this diagram demonstrates, in descending order, eighteen different areas where duplication of the gastrointestinal tract has been found. In many cases these will exist throughout life and cause no symptoms. In other cases the cyst may keep on filling with fluid, may become infected and have a sudden expansion and obstruction or hemorrhage, or it may just be in a spot where it causes obstruction without either hemorrhage or infection. It is frequently a cause of intussusception if it projects into the gastric lumen. It is one of those things again which must be considered and thought about in trying to make a differential diagnosis.

A rare condition in the duplication of the intestinal tract is calcification in the duplicated segment not connected with the gastrointestinal lumen. A few do connect with the normal lumen, in which case they may be identified by barium entering the abnormal loop.

The next slide is a calcified mass in the left upper quadrant of unknown etiology, it is certainly not part of the kidney which can be seen outlined very nicely with a normal pyelogram.

The next slide shows the same patient with intussusception. Now we can see the ladder-like striations of the mucosa, the classical appearance of the small bowel mucosa in intussusception around this calcified duplication or cyst.

The next one is intussusception due to a large polyp arising in the ileum which is in the transverse colon beyond the hepatic flexure almost to the splenic flexure. This is not very common in infants, but is probably the most common cause of intussusception in the adult.

This next case is one of imperforate anus in a patient whose colon had ruptured and produced a pneumo-peritoneum, a most unusual sequence of events presenting this remarkable picture. We can see the fluid level here. We always take an upside-down film when looking for imperforate anus, with the thimble or some metal object being put where the anal dimple is seen.

The next case is again an upside-down film of a patient who had no movement at all through the rectum, with a very small questionably imperforate rectum, a patient with meconium ileus. Some of these at x-ray examination will have this characteristic appearance of fine granular sand-like shadows throughout the abdomen which apparently is the meconium itself opaque enough to show up in the x-ray film.

Here is another patient with obstruction of the bowel well demonstrated, but none of it down in the colon, this is all small bowel. Again we see this telltale finely-mottled calcification throughout the peritoneum indicating meconium ileus.

The final slide I shall show is a very good example of one of the things we have learned in the last few years, advancing knowledge a little bit further, and that is the cause of Hirschsprung's disease. Heretofore, everybody had been considering the dilated segment of the colon as the abnormal part of the bowel. Dr. Neuhauser, my colleague who combines pediatrics and radiology at Harvard, had the concept, and he demonstrated it, that the abnormal segment was the contracted area just inside the rectum. If we look for it and if we are careful when giving the enema and didn't cover it up by giving too much, we can find the small contracted segment in nearly all the cases of Hirschsprung's disease. That I think has changed our whole concept of the disease. We have gone on from there. The pathologists have demonstrated that there is a lack of normal ganglion cells in this contracted segment and some patients have a lack of ganglion cells throughout the entire colon. Thus we have a new disease, this one is "aganglionosis of the colon."

I have showed you only a few of the many diverse types of intestinal obstruction which we may meet in childhood and which we of course turn over as promptly as we can to the surgeon. In one of the recent journals of pediatrics this year, a survey of the intussusception problem was made, contrasting medical and surgical therapy giving the mortality by each method and strangely enough in some 12 to 15 different institutions the mortality ranges from 0 to 18%. It is not all on one side. It could be 0 by surgery, 0 by medical reduction. It may be 18% by medical or surgical reduction. To me it seems that the important thing in recognizing the intestinal obstruction in children and curing it with very little mortality depends first upon the alert pediatrician picking up the symptoms and going after it early. It also depends upon good radiology, a radiologist who knows what to look for and how to look, then a very good surgeon who knows what to do, and finally the whole team keeping the child in good electrolyte balance until he gets over his surgery.

*Dr. Mark Ravitch:* I'm sure you all realize

how enviable it would be and how simple the position of the surgeon who was called upon to treat a sick child whose problem had been diagnosed and handled by Doctors Wright and Sosman. The position of the panelist who has to follow Dr. Wright and Dr. Sosman is not nearly so enviable. Almost everything I wish to say has been discussed by Dr. Wright and amplified and illustrated by Dr. Sosman. They have waved a couple of red flags for my benefit, which will help.

We do have a couple of lantern slides which we will show. There are really only one or two important messages involved in the diagnosis and treatment of neonatal intestinal obstruction. They have already been mentioned. Dr. Wright has said that newborn babies don't vomit, and if they vomit be suspicious, if they vomit bile your suspicions are confirmed. If a newborn baby vomits at all, if he regurgitates more than you think is right, certainly if he spits up bile, you should proceed at once on the definite assumption that that baby has organic intestinal obstruction and the next step is an x-ray examination. I don't know about most of you, but I was taught in medical school that you examined a patient and you percussed him and you thought, then you went back to your books and finally when all other resources had been exhausted, you asked for an x-ray examination. It was really thought a disgrace if you couldn't make the diagnosis without the x-ray. There is a certain reluctance today to get roentgenograms on newborn babies, yet I know nothing as rewarding as a roentgenogram of a baby and for the cost of a single film you can examine his head, extremities, thorax, abdomen and pelvis and obtain a tremendous amount of information from it. At the slightest suspicion in a baby that vomits, one should obtain films.

This first slide is of a baby who has an omphalocele. I bring that into discussion not only because that is an inconvenient lesion for the patient, but because it is occasionally associated with an atresia of the contained intestine and even in a case like this in which practically all the abdominal viscera are outside the coelom, perhaps you can just see the dark tip of

the spleen here, and all the intestinal tract; with very prompt treatment the situation can be dealt with by the method of Dr. Gross for such a lesion as this. That is, leaving the sac, lifting back the skin way around to the back, up on the chest, down on the pelvis, and pulling the skin up over the sac dealing with the resultant hernia at some other time. This is perhaps as good a time as any to bring up the importance in any type of intestinal obstruction in infants and children of passing a tube at once and starting continuous suction while you are going through all your diagnostic maneuvers. At the moment the baby is born, all the intestine is collapsed, but with the first few breaths the baby starts crying, air seeps down into the intestine, and any subsequent operative procedure for atresia or stenosis or for a condition such as is shown here becomes much more difficult so that we start gastric suction instantly.

This next slide is of a baby with a diaphragmatic hernia and his chest is filled with intestine. The important thing about this is that it actually represents intestinal obstruction which is possibly the most dangerous consequence of diaphragmatic hernia in the newborn. Obviously the enormous distention of the intestines displaces the heart far to the right and in this case across the mediastinum, compresses the lung entirely and the symptoms may present as symptoms of respiratory obstruction or collapse, but actually it is intestinal obstruction which is the prime mover in this sequence and this like omphalocele is one of the true absolute emergencies of the neonatal period. When one sees a diaphragmatic hernia one operates, though it may be at eleven o'clock on Christmas eve or New Year's eve. By morning that child may have become obstructed and may be in dreadful condition and one has added to the risk of the hernia repair the risks of operation for intestinal obstruction. While some children may go through life without symptoms in rare instances, that is no justification for delaying operation at all. Again, the first thing is a stomach tube to keep additional air from going into the intestinal tract. This is the postopera-

tive picture. (Slide)

Now a view of some of the lesions which have already been discussed. This is a child, (Slide) who as you see has no air in the intestines at all, but notice how beautifully outlined by air the stomach and duodenum are. I am not sure really that aside from scientific curiosity and one's own clinical pride that it is quite as important as Dr. Sosman indicated to know exactly where the obstruction is. The fact of the matter is that one has principally to know just that it is obstruction. A transverse incision in a baby just below the umbilicus will give you very satisfactory access to anything between the diaphragm and the levator ani, and the important thing is not to delay operation. Whether the obstruction is complete or incomplete or whether it is high or low, is just a matter of clinical judgement, like describing exactly how acutely inflamed the appendix is. This is a child (Slide) who had an annular pancreas and it was relieved by a duoden-jejunostomy. You see air filling the intestine.

This slide is of a child with a meconium ileus and this is totally indistinguishable or largely indistinguishable from any other cause of neonatal intestinal obstruction. It is as you know, generally associated with cystic disease of the pancreas and the meconium ileus is simply one of the severe presumptive symptoms early in life. It is a difficult disease to treat, not only because the meconium which plugs the distal ileum is thoroughly glutinous and impossible to pull, to pick, to cut, or to push, but because even if by luck and skill is impossible either to remove all of this material or, as has been recently suggested by Dr. Gross and others, to resect the portion of the bowel which is plugged by it, even if you are able to do that you are faced with a child who has a very serious if not a hopeless metabolic disorder. A number of those children can now be carried through life actually because of the antibiotics which save them from the respiratory infections which otherwise carry them off.

Now here is a child (Slide) who has meconium peritonitis. That was a meconium

ileus, this is an entirely different lesion. This may be present as intestinal obstruction and, as Dr. Sosman said, you see a large area which is rather distinct and granular and within that area you see frank calcification. You can come to an unequivocal diagnosis before operation, on the basis of the calcification, of meconium peritonitis. That means that sometime during the antenatal period the intestines ruptured and the meconium leaked out into the peritoneal cavity, and strangely enough in most instances the perforation will be sealed off and will not be demonstrable at operation. However, in the vast majority of these patients there will be found an atresia, a stenosis, or rarely a meconium ileus to account for the obstruction which caused the bowel to blow out.

Now in this patient at operation there was a meconium ileus, this is some of the detritus within, the deeply purple stained material. This actually has detritus, you see, ingested by the giant cells, and this is quite unusual. There were in the inflammatory masses bits of mucosa which had come out of the intestine at the time and there was no perforation to be found at operation. A short circuit was made around a very acute angulation which may have been organic constriction, and this child did quite well.

Here we have a child (Slide) who has again a tremendous obstruction. This child was given barium when it was 21 days old. You see that there is an incomplete obstruction and this is a partial diaphragm at the duodenal-jejunal flexure. We, of course, agree with Dr. Sosman that in a large majority of cases you can tell almost as much from a simple x-ray examination that shows the distended stomach with some air getting through so that you know there is a partial obstruction, as you can from this barium meal which shows essentially the same thing.

This is a picture in which you will notice that we have reinforced with ink the outline of the bowel. This child had a situs inversus and in addition had a malrotated intestine with a mid-gut volvulus, which results of course from the fact that the entire small bowel hangs on the vascular pedicle of the

superior mesenteric artery with no fixation of the mesentery, hangs as from a stalk and then in utero or outside the uterus rotates and produces a volvulus which produces a curious pattern of intestinal obstruction. In some hospitals, although you think that an atresia with an organic lesion that must be repaired by anastomosis would give you the highest mortality, in a good many hospitals, it is this lesion malrotation with volvulus, which gives you a higher mortality, and the reason is, in the first place that meconium is passed, and in the second place, that the babies vomit as if they had a very high obstruction, because of course the whole small bowel being twisted, the obstruction is pretty close to the ligament of Treitz and the bowel will be completely blocked off, distention never appears, and this sometimes presents a very puzzling picture. But if recognized early, the bowel derotated and measures taken to release any bands which may exist, crossing over from the mal-rotated colon across the duodenum, the patients do well. I would like to ask the other speakers why is it that once you derotate a volvulus, the child never gets a volvulus again. While we are on the question, I would like to know why it is, Dr. Sosman, that annular pancreas, which is of course a congenital lesion of the pancreas with the pancreas completely surrounding the duodenum, rarely is found to give trouble in infancy or childhood, but usually comes late in middle-life. Most of the cases of obstruction due to annular pancreas are in adults, not in infants at all.

I have been asked to say something about intussusception and a red flag was waved at me which was actually not the mention of discussion of the method of reducing intussusception, but the remarks about surgical and medical treatment. This is something which I feel very strongly about. What we are talking about is operative and nonoperative treatment. Surgery is the mechanical branch of the healing art. We don't operate on everybody who comes onto the surgical wards and yet we treat them surgically, we think. This is a roentgenogram of a barium enema of a child of nine months who had had symptoms of in-

tussusception, the classical kind described by Dr. Wright, of 27 hours duration. When the barium was given, you see the barium stuck right there, you see the concave head of the advancing intussusception, the barium outlining that, that much barium in the female vagina would outline the cervix, and it creeps up into these cornices which are elongated as we watch them under the fluoroscope and then suddenly the whole mass moves forward like this. Now sometimes there will be a delay of five, ten or even fifteen minutes at the start and then the thing suddenly begins to move. At times we have had to replace an intussusception which was hanging out of the anus so that we could get a catheter in the rectum. The intussusception may reduce almost too fast for you to stop it in order to get a spot film or two. At other times there will be a delay at the splenic flexure and another delay at the hepatic and quite commonly a delay at the ileo-cecal valve.

This slide shows the progressive steps in the reduction and finally complete reduction with many loops of small bowel filled. Our procedure with regard to intussusception is to call the operating room the minute the diagnosis is made. When a responsible pediatrician from the outside calls in that he is sending in an intussusception, you should call the operating room, call the anesthetist and have everything ready. If there is any doubt about the diagnosis we wait until we have seen the patient and as soon as the diagnosis is made we call the operating room and do the same thing. Then if the baby needs fluids or blood those are given at once. A tube is placed in the stomach, and the stomach emptied so the baby won't vomit and aspirate. In the fluoroscopic room the baby is put upon the fluoroscopic table, a large Foley bag catheter is inserted into the rectum, the catheter distended and the buttocks taped together strongly with adhesive tape. I'm sure that Dr. Wright and Dr. Josey remember that we used to use interns just to hold the buttocks together, but we found that while adhesive tape is a little more expensive, it is more efficient. This is not a very complicated method and yet the reason

it is unpopular is twofold. First, there are few surgeons who can see quite as much glory in an enema as in a knife. The enema tube and bag may seem an undignified armamentarium for a surgeon, it certainly has no romance in it. In the second place, it frequently does not work. It does not work for annoyingly simple reasons—because the barium is so poorly mixed it won't flow, because the catheter has been greased and slips out, because the balloon has deflated and the catheter slips out. It is surprising how large a balloon can be expelled from the anus of a very small baby. If your balloon is firmly in place, it is frequently necessary to pull back on it a little so it pulls back firmly against the perineal diaphragm, and if the barium is allowed to run in by gravity from an ordinary infusion pole at a height of no more than 3 to 3½ feet above the fluoroscopic table and allowed to run in uninterrupted, it has been our experience that you can reduce a very considerable majority of the intussusceptions by this means alone. Our over-all reduction percentage is now something like 74 or 75% and it keeps rising all the time. Of the last 21 intussusceptions done in Baltimore, and most of those done by the house staff, not necessarily by myself, 19 were reduced by barium enema alone.

This slide shows the story up to about 3 years ago. In New York we've had about 7 or 8 more intussusceptions with essentially the same proportion of reductions. You can see that complete reduction by barium enema alone was achieved with intussusceptions as far around as you like. We have had no instances of rupture, no instances of perforation, no instances of reduction of gangrenous bowel. We had one death in a child last summer. It was reported that the barium could achieve nothing and the child was operated upon and as one reconstructs it, it is fairly clear that the bowel which was reduced was gangrenous and left in place instead of being resected, but nothing in that case was achieved or lost by barium enema. I am in total agreement with Dr. Sosman that in clinics with expert pediatricians and good surgeons interested in the problem there will no longer be any difference

in the mortality from intussusception regardless of the method of treatment and no patient should die anymore of intussusception. That was not true when we first began to use this method, and I might say we began it about 50 years after its worth had been proven in Scandinavia and Australia, but at that time some of the largest institutions in the country, like a very large private clinic in Minnesota whose name I won't mention, could report a mortality of 34% without apologizing for it—this was for the treatment of intussusception. That was exactly the same mortality with which Hirschsprung astounded the world in 1900 so that people could not believe his figures and he was forced to issue a second report of 107 cases itemizing and describing the clinical course and the name and history of every single patient before they would believe his astoundingly low results because at that time mortality was almost 100% from the disease. However, today I think that no matter which procedure, as long as you do it well will be attended by any mortality except in irretrievable cases. But, the morbidity is inevitably going to be lower if in one group of patients 75% require no anesthesia,—and we have anesthetized none of these patients except a girl of about ten who bit me and I thought in her case anesthesia would be helpful. So in 75% of these patients where no anesthesia is required, no incision is required, you're going to avoid whatever incidence of complications and morbidity and prolongation of hospital stay may be associated with anesthesia and with incision in even the best hands.

It has been recognized for a long time that not all intussusceptions go on to the production of strangulation and gangrene and if you will study the mortality curves from any institution back in the days when there was an appreciable mortality from intussusception, you will find that in the cases treated let us say by operation alone in the first 12 hours, there was no mortality at all. From 12 to 24 hours mortality rose fairly sharply, and at 48 it got to be high. It leveled off somewhere between 72 and 96 hours and after 96 hours duration the mortality dropped acutely. That is not to sug-

gest that if you see a child with intussusception of two days you should wait two more days before treating it. The point involved is that if a child has gone four days, if he had a strangulated obstruction the chances are he would have been dead, so that a good many of the children with strangulated obstruction have such acute and severe symptoms they come in early. We are quite convinced from our clinical experience, from the very extensive material in the recorded literature, and from our animal experiments that if you merely let the barium flow by gravity, don't allow anybody to manipulate the intestines with any heavy leaden gloves or without gloves, manipulate the bowel not at all, don't squeeze on the tubing, don't pump, don't surreptitiously raise the pole an extra couple of feet so that you won't perforate the bowel and so that you won't reduce gangrenous bowel. The strain on the intussusception from the pressure of the fluid is borne not by the gangrenous bowel which is intussuscepted, but by the upper end of the receiving loop of bowel the intussusciens which is the very last point that becomes gangrenous.

*Question:* In intussusception is there any way to prevent further recurrence?

*Dr. Ravitch:* This is a question in which I detect true southern courtesy. I think the question really means do you get more recurrences if you reduce them this way than if you operate. The answer is yes, you do. If you operate you will have an incidence of recurrence of perhaps 2%, if you treat them by barium enema you will have perhaps 4% to 6%. Now why is that? There is a corollary fact that all of you who have had experience with this problem will recognize. I think you have all seen children who were saved from an intussusception in infancy who returned at the age of five or six with intestinal obstruction due to adhesions and perhaps died at that time. The trauma of operative reduction is such that I think that it pretty well plasters the bowel up and decreases the likelihood of recurrence. I'm not sure that that is a justifiable reason for subjecting the patient to that trauma. I think too that it may explain the

fact that we almost never find that our patients need resection. One reason is that we don't see the bowel which probably looks pretty dark and pretty horrible and we are not frightened into removing perfectly viable bowel, and the second is that we have not traumatized the bowel the way you would have to if you manipulated it manually.

*Question:* Have you used an enema during operation as an aid to reduction?

*Dr. Ravitch:* Not quite. I began this work with a certain amount of opposition, from surgeons at least, when I was a junior assistant resident and could only do it when it was late at night and no one else wanted to get up to see the baby. When a classmate of mine, Bill Watson, now at Pittsburgh, was resident, he was extremely loath to let me use this occult method when we could instead see at operation what was going on. I finally said "I'll tell you what we'll do, take the baby up to the operating room, open it, look at the intussusception and then we'll watch it while we hang a bottle of intravenous saline up and let it run into the rectum through a catheter. He said all right, so we took the baby up to the operating room, the intussusception was in the descending colon, we trusted each other like more or less brothers. He put in two fingers and I put in two fingers, and we held the intussusception between them. He said "I'll give you five minutes by the clock." We let the fluid run and at the end of five minutes he looked at me rather pityingly, for neither of us had felt anything, we took out our fingers and found the intussusception totally reduced. The reduction was so gentle that it was absolutely imperceptible to us. I'll admit that we were handicapped because each of us had only one cortex going with which to feel this thing, but apparently it was just the most gentle thing in the world. We have done it many times in dogs, just watched the intussusception reduce, and it really is a very gentle, smooth progression.

*Question:* What clinically makes you suspect a hiatus hernia from birth?

*Dr. Ravitch:* I have only seen one, so I will pass that on to Dr. Wright or Dr. Sosman.

*Dr. Wright:* I haven't seen any.

*Dr. Sosman:* It is very uncommon—true hiatus hernia is usually a defect of the diaphragm.

*Question:* Is there any difference between eventration of the diaphragm and diaphragmatic hernia?

*Dr. Ravitch:* The first question, how do we recognize the diaphragmatic hernia in a baby? By a combination of symptoms of respiratory distress and intestinal distress. A baby who vomits and is blue, or breathes rapidly, a baby who is moderately cyanotic or breathing rapidly, who gets worse with every swallow he takes because of the air and fluid going up in the chest, where the stomach usually is in these patients. Rarely by physical signs, though I have seen awfully good interns who picked them up in a routine physical examination of a newborn baby, but this is not awfully common really, and many times we just suspect it and confirm it by x-ray.

Dr. Joscy's question, what is the difference between eventration and a hernia. I have puzzled long and hard over that; I am sure that Dr. Sosman and Dr. Wright have the answer. For one thing, you just go through the Index Medicus and get out all the reports on eventration: the bulk of them are due to phrenic paralysis which occur due to tuberculosis or some other disease. Most people just take eventration to mean an elevated diaphragm and that's what frequently happens. If you seem to have an elevated diaphragm it is common to say it's not hernia but eventration. I think it has become an academic distinction. If you mean that an eventration of the diaphragm is a diaphragmatic hernia with a sac, we have certainly seen perforation and gangrene of the viscera in herniae that have a sac just as in herniae that don't have, although the majority of congenital diaphragmatic herniae do not have sacs. There is a group of patients in whom we've been interested—one sees a peculiar bulge continuous with the diaphragmatic shadow on the right. At operation that is found to be due to a thinning out of the diaphragm with a herniation of the liver through it, which has been there all the time, so it's neck is con-

stricted and in one of those babies with every move and respiration this bulge struck the heart. Some of these patients have compression of the lower lobe and have repeated bouts of pulmonary infection. It is extremely rare to find an entire diaphragm which is tissue-paper-thin and elevated, which is the picture often given of eventration and rarer still to find no diaphragm at all. You can generally assume, and this is important, that a surgeon can correct satisfactorily any diaphragmatic hernia that comes down the pike. He will fail once in a while, but there is usually enough tissue to complete the repair.

*Dr. Sosman:* I agree that a lot of the eventrations are in all probability paralyses. The differentiation that we have used has been the

movability of the diaphragm, watching the patient work-up. If it's completely paralyzed you will get a paradoxical movement. The weakened diaphragm will move up and the normal diaphragm will move down. Eventration to me is a mixture of things. It is not one specific etiological thing, it is a group of things that has to do with marked elevation of the diaphragm, some paralyzed, some incompletely developed, and the great majority of them have no symptoms. That to me is the striking difference between eventration and hernia. Hernia will have symptoms that cause compression of the bowel, whereas in eventration the bowels are below the diaphragm and usually function quite normally.

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*THE RELIEF OF SYMPTOMS*, by Walter Modell. W. B. Saunders Co., Philadelphia, 1955. Price \$8.00.

In his preface the author, Associate Professor of Clinical Pharmacology at Cornell University Medical College, points out the fact that modern therapy concentrates so greatly on the efforts at curing disease that symptomatic treatment of the patient may often be neglected. For this reason he undertook to collect and edit lecture and seminar material for publication as a book devoted to the relief of symptoms.

The section on theory presents arguments for the use of medications for symptomatic relief, makes an effort to evaluate relief, to evaluate the patient's complaint, and to discuss, in general, considerations regarding the usage of drugs and what is to be expected of them.

Then follows chapter by chapter discussion of various symptoms and comments as to their treatment.

The final section is a short discussion of the dangers of the use of and indications for steroid therapy.

The book is simply written, contains much information of practical value and would be of some assistance to students and practitioners in consolidating thinking as to the value of available symptomatic remedies for the symptoms discussed. Nothing that is new or unknown is presented, but a good deal of useful advice in the choice of effective drugs is given.

—Kelly T. McKee, M. D.

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*CLINICAL DISORDERS OF HYDRATION AND ACID-BASE EQUILIBRIUM* by Louis G. Welt, M. D.,—215 pages—Little, Brown and Co., Boston. Price \$6.00.

The jacket blurb of this book is written by Homer W. Smith, dean of renal physiologists. He states "Every physician in every branch of medicine recognizes the importance of salt and water balance and is well aware that many advances have been made in recent years in the study of body fluids. . . .

*Clinical Disorders of Hydration and Acid-Base Equilibrium* is well written, concise, and represents the carefully considered judgments of one who had had extensive experience in this and related areas. It fills an important gap in medical literature, and I predict that, in order to attain immediate and widespread reception, you need only exhibit the table of contents."

Doctor Smith does not praise this book too highly. The author begins with the assumption that the reader is totally unprepared to read a book of this type without a review of fundamentals of the field. He thoroughly discusses definitions and concepts and goes on to review renal physiology and the multiple clinical problems involving water and electrolytes.

The book is of value as a primer of fluid balance or as an excellent review of a complex subject.

—Arthur V. Williams, M. D.



# ELECTROCARDIOGRAM OF THE MONTH\* — CARDIAC ANEURYSM

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*Case Record*—A sixty-five year old negro male being followed in the out-patient clinic of the Medical College of South Carolina was seen in December 1955, at which time the electrocardiogram below was made because of a suspected arrhythmia. The patient acknowledged no symptoms suggestive of cardiac disability. He was known to have had diabetes mellitus for several years, and in 1948 his left leg had been amputated because of occlusive arterial disease with gangrene of the left foot. Again in August 1954 he had been hospitalized for treatment of a similar condition in the right lower extremity, stating that he had chopped off the toes of his right foot himself with an ax because of extensive gangrenous necrosis. A below-the-knee amputation was performed on this admission under refrigeration anesthesia, following which the patient was digitalized because of questionable congestive heart failure. An electrocardiogram taken at that time was interpreted as indicative of an old anterior wall myocardial infarction.

On several subsequent visits to the out-patient clinic (primarily for control of his diabetes) the patient's blood pressure was observed to be on the order of 170/90. The patient acknowledged no history suggestive of coronary occlusion at any time.

*Electrocardiogram*—The most significant features of this electrocardiogram are seen in the precordial leads V-1, 2 and 3, and consist of prominent Q waves followed by relatively small R waves, and elevation of the ST segments of about 1 mm. The electrical axis is horizontal, producing a so-called left axis deviation, but that this is not indicative of left ventricular hypertrophy is indicated by the normal intrinsic deflections of the R waves in the left ventricular leads. The QRS deflections in V-2 and V-3 are of conspicuously low voltage, and some T wave changes are present in these and other leads, compatible with the effect of digitalis.

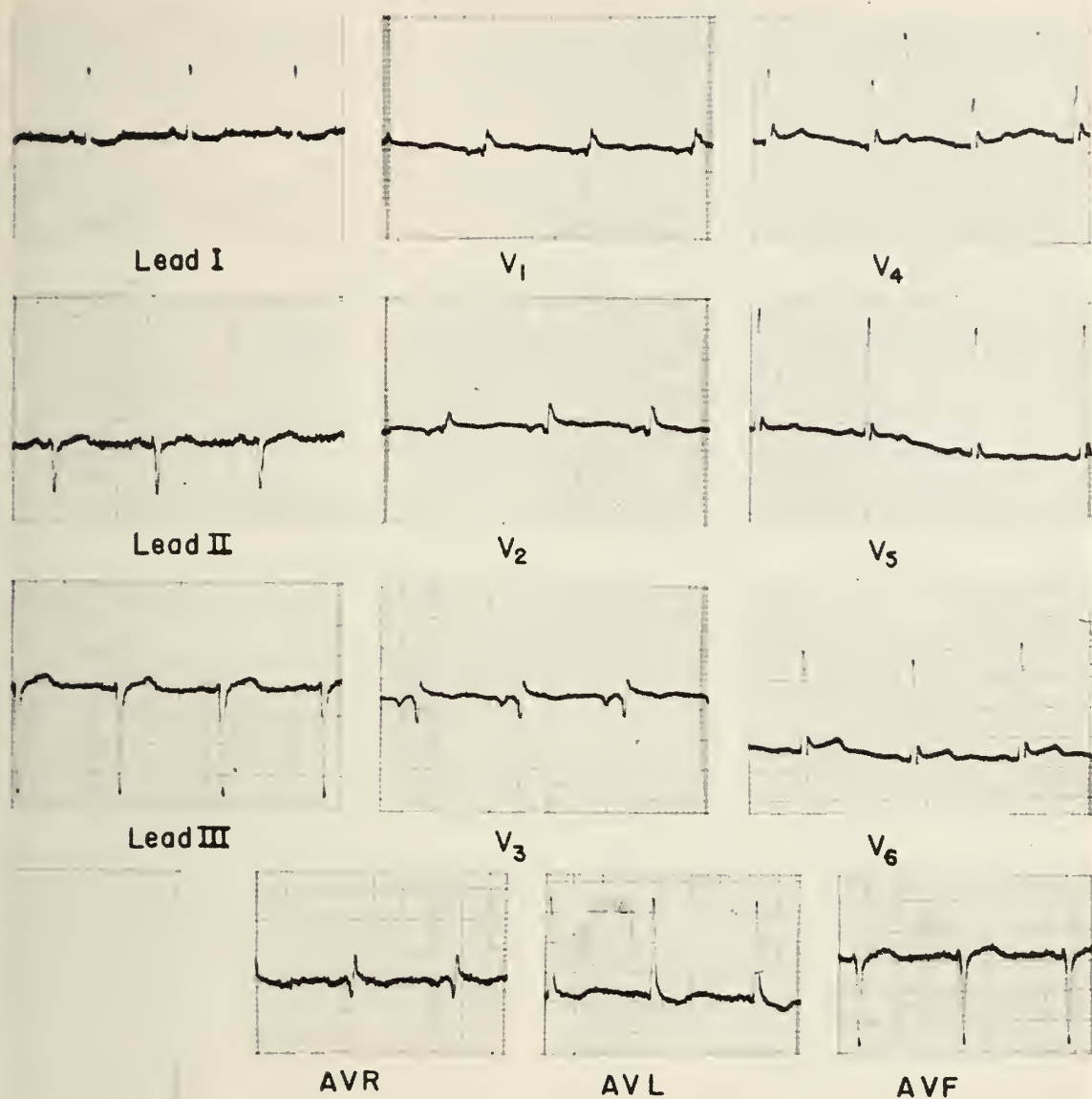
*Discussion*—The Q waves which are both deep and wide in V-2 and V-3 are indicative of previous infarction of the anterior myocardial wall. The localized low voltage deflections of the QRS complexes in these leads is further corroborative evidence of this. Indeed, if only the routine four lead electrocardiogram of a dozen years ago had been used in this case the diagnosis would have been missed altogether, for there are no significant changes in the standard limb leads. Elevation of ST segments in the precordial leads suggests that the infarction might be a very recent one, but this

was persistently present in subsequent tracings which showed none of the evolutionary changes ordinarily encountered in acute infarction.

These findings are strongly suggestive of a ventricular aneurysm. Accordingly, the patient was referred to the radiologist for cardiac fluoroscopy with a request that he look specifically for this abnormality. Roentgenographic studies were done on February 24, 1956 with the finding of a small aneurysm of the anterior wall of the right ventricle, observable only when the patient was viewed in the right anterior oblique position.

"Cardiac aneurysm" is an old term which at one time was used rather loosely to describe almost any sort of cardiac enlargement. Currently it is used to denote a *localized* dilatation, usually of a portion of the wall of one of the ventricles, almost always the result of previous infarction of that area. A more specific term for this might be ventricular aneurysm. This lesion should be suspected in any case which shows persistent elevation of the ST segments in precordial leads, especially if there is also evidence of previous infarction. These ST segment displacements, the exact cause of which is still uncertain, may persist for years; in other words, the normal evolutionary changes in the electrocardiogram following acute infarction become, as it were, arrested at an intermediate stage in ventricular aneurysm. When the lesion occurs on the posterior or diaphragmatic surface of the heart it is far more difficult to diagnose both by x-ray and by ECC, since the paradoxical pulsation of the aneurysmal area is more difficult for the roentgenologist to visualize in this region, and we have no electrocardiographic leads from the posterior wall comparable in localization to the precordial leads for the anterior wall.

Ventricular aneurysm is said to be much more frequent among patients with hyper-



tension and diabetics, and particularly among those who show definite electrocardiographic evidence of having had a previous myocardial infarction without the patient having known of it (the "silent infarcts"). In one series of 40 cases<sup>1</sup> half of them gave no history suggestive of coronary occlusion. It is of course understandable that lack of rest and treatment during the acute stage of infarction, as well as any elevation of pressure in the ventricle, would predispose to aneurysmal dilatation. Also understandable is the fact that chronic congestive heart failure is said to be a more fre-

quent complication of infarction in the presence of ventricular aneurysm. With an outward bulging of one portion of the ventricular wall while the remainder contracts in systole some decrease in cardiac output and perhaps in blood pressure might be expected.

The relatively small cardiac aneurysm in this patient undoubtedly resulted from his extensive atherosclerosis involving both peripheral and coronary arteries.

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# RESECTION IN PULMONARY BLASTOMYCOSIS

A REVIEW WITH PRESENTATION OF A CASE

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Optimism in the treatment of the once dreaded disease of systemic blastomycosis is now justified. Considerable progress in the treatment has been made and knowledge gained which has brought about a challenge to our long held concepts about the natural history, incidence, and prognosis of blastomycosis. It is held by some that this disease is naturally much less severe than previously thought. Recent chemotherapy has opened a new era, the role of surgery is being rapidly clarified, and the advances in both of these branches of medicine have markedly improved the outlook for those afflicted with this disease.

North American blastomycosis or Gilchrist's disease is caused by a specific organism, *blastomyces dermatitidis*. The classical view has been to divide the disease into two groups, cutaneous, and systemic or disseminated. The systemic form has lesions in the deeper organs. It has been thought that the cutaneous type was often a totally separate form. Recent evidence, however, suggests to some investigators that perhaps almost all the cutaneous forms are actually but a manifestation of systemic involvement from the primary lesion in the lung. Dissemination occurs chiefly through the hematogenous route, producing positive blood cultures, although the disease also spreads by direct extension and through the lymphatic vessels. A tendency to heal is often present in the lung as well as other organs.

## Incidence

Blastomycosis in South Carolina occurs infrequently but has been reported from the coastal area to the mountains. Anne Adams<sup>1</sup> from the Medical College of South Carolina reports that a laboratory diagnosis was made there three times in the last 5 years. These patients were from Andrews, St. Matthews and Tiger-

ville, and there was pulmonary involvement in all three cases. Smith<sup>16</sup> found that three cases from South Carolina have been seen at Duke University Hospital. They came from Hartsville, Bennettsville and Bishopville. Five of the above 6 cases were from east of Columbia in the sandy area of the state.

Blastomycosis is almost exclusively a North American disease. It occurs predominately east of the Rocky Mountains. Kunkel, *et al*<sup>8</sup> report 6 cases from the Rocky Mountains. Most of their 90 cases which were seen at the Mayo Clinic came from the upper Midwest. They feel that it is just as endemic in the upper Midwest as it is in North Carolina. North Carolina has been considered an endemic zone. Cases have been reported from about all of the southeastern states, the states of the Mississippi Valley, the Ohio River Valley, and from Buffalo.

In 1939 Martin and Smith<sup>10</sup> collected 243 proved and presumptive cases. Smith<sup>14</sup> in 1949 reported 50 cases studied at Duke Hospital in 18 years. Seabury<sup>2</sup> treated 12 cases of systemic blastomycosis at Charity Hospital in New Orleans over a two and a half year period. It has been a common experience that the incidence of the disease parallels to a large degree the index of suspicion manifested by the medical profession toward it in a particular locality.

The first proved epidemic of blastomycosis occurred in 1954 according to Smith, *et al*.<sup>17</sup> This consisted of 11 cases over a few months' period in one small locality in the eastern part of North Carolina.

## -Prognosis

In the past the prognosis in the systemic form has been considered dismal. The review of Martin and Smith<sup>10</sup> showing a mortality rate of over 90% has been expressive of the

general attitude of the profession toward it. Recent data shed doubt on the accuracy of this attitude and seem to contradict the belief that death is almost inevitable once the disease is no longer limited to the skin. Schwarz and Baum<sup>12</sup> emphasized the tendency of blastomycosis toward spontaneous healing, especially in the lung, but also in other organs, and they also contended that the disease is predominately a pulmonary infection notwithstanding its cutaneous or other systemic manifestations. At present we are in the midst of a controversy concerning the natural history of this disease, and the prognosis is one aspect under controversy.

Some significant studies on the prognosis in the systemic and pulmonary form of the disease have been undertaken. In the series of Martin and Smith<sup>10</sup> in which the cases were followed two years or more the mortality was 92%. However, Kunkel, *et al*<sup>8</sup> found in 36 cases of systemic disease a comparative mortality of only 23.3%. These 36 cases were from 90 cases seen at the Mayo Clinic. Weisel and Landis<sup>20</sup> have reported 7 cases of pulmonary disease, none treated by stilbamidine, and all apparently cured. In the 10 cases of resection of pulmonary blastomycosis, (later presented herein,) in which no other specific treatment was used only one died of blastomycosis. The above data suggest that the prognosis of the systemic disease is not as bad as has been commonly considered.

Kunkel, *et al*<sup>8</sup> presents evidence that subclinical pulmonary infections occur and disappear spontaneously. He reports the first case of subclinical pulmonary blastomycosis with spontaneous cure on record. Smith, *et al*<sup>17</sup> recently reported a similar spontaneous cure in a child from North Carolina with lung involvement. Kunkel, *et al* points out that perhaps blastomycosis might be similar to coccidiomycosis and histoplasmosis which have now been shown to exist not uncommonly in a subclinical form. Only a few years ago these diseases were considered almost invariably fatal even more often so than blastomycosis. However, it has now been shown that many patients with histoplasmosis and coccidiomycosis recover without complications.

## Diagnosis

The preoperative diagnosis in the pulmonary form of blastomycosis is often difficult even when all available tests are employed. The clinical picture is not diagnostic. Roentgenologically, there is no characteristic picture. Bronchoscopy can be of considerable value. Weisel and Landis<sup>20</sup> reported 7 consecutive cases with endobronchial disease. Superficial mucosal erosions and glairy, thick brown mucus were characteristic findings. Rarely an endobronchial mass will be found. Secretions from the bronchi or tissue for biopsy should be taken and studied by stains and cultures. Sputum studies consisting of smear and culture are most important and are the ideal diagnostic methods. A positive skin test is considered significant and the complement fixation test may become positive in extensive forms of the disease. In the cases treated surgically and reported herein the preoperative diagnosis was made in only a few instances.

### Roentgenographic Picture

Roentgen examination of the chest is most important in discovering a lesion, however it helps but little in making a specific diagnosis. However blastomycosis may be compared to tuberculosis except that it shows a greater incidence of fibrosis, massive consolidation, pleural involvement, and a smaller incidence of pleural effusion, cavity formation, mediastinal adenopathy, and miliary lesions. Large or small cavities can occur in blastomycosis and are not too infrequent.

### Medical Treatment

The introduction of the aromatic diamidines has revolutionized the treatment of pulmonary blastomycosis. Patients seem to respond equally well to these drugs regardless of the presence or absence of skin hypersensitivity or the presence of complement-fixing antibodies in the blood. Two cases of blastomycosis were treated with intravenous injections of stilbamidine by Schoenbach and Associates<sup>11</sup> in 1951. In 1952 Snapper and McVay<sup>18</sup> treated 2 cases with 2-hydroxystilbamidine. Seabury<sup>2</sup> has treated 12 cases with these drugs and Smith<sup>15</sup> treated 22 cases. Smith<sup>15</sup> reports on 17 cases treated by stilbamidine and 5 by 2-hydroxystilbamidine. These were pulmonary or

systemic cases and did not include the cutaneous type. One patient was practically moribund and died after the third dose of stilbamidine. Two patients relapsed after treatment. Nine patients have been observed for only a few months, but the remaining 10 patients have remained well for 15 to 24 months. Seabury<sup>2</sup> treated 12 cases with systemic disease with these drugs. Seven cases are well controlled, several for as long as two years. Three are now doing well under therapy. In two cases treatment failed. Murphy<sup>2</sup> has had good results in two cases but has also had two failures. Stilbamidine therapy is not without serious complications. Nitroid crisis, with sweating, vomiting, and collapse can occur. Destructive lesions in the kidneys and liver are also recorded. These two complications can be avoided by proper preparation and administration of the drug. However, facial neuropathy consisting of numbness or paresthesias in the skin of the face supplied by the sensory portion of the fifth nerve occurs in most patients. There is no satisfactory remedy for this.

2-hydroxystilbamidine is somewhat less toxic than stilbamidine and only rarely produces facial neuropathy. This would seem the drug of choice. Its results are so good and toxicity so slight that its use in pulmonary lesions is probably indicated in all medical cases. In those cases in which tissue is resected as a diagnostic procedure probably treatment with this drug after operation should be employed. Unfortunately these drugs are expensive at present. Further experience is necessary to determine the best treatment regime and the results of treatment with these drugs.

The dramatic results of these drugs should not allow us to forget other methods of treatment, some of proven value, some not yet proved. The application of our knowledge of immunology to this disease and its correlation with the use of iodides seems basic. Weisel and Landis<sup>20</sup> have reported 7 consecutive cases of pulmonary blastomycosis, most of which were apparently cured by iodides given orally or by aerosol nebulizer. This remarkable result was achieved without the use of the stilbamidine group of drugs. Undecylinic acid seems to have been of value in some. Basic

therapy with good diet and bed rest should be remembered. However, prolonged bed rest does not appear important in the postoperative care in most patients, for most of those having pulmonary resections were up and about at limited activity early after surgery with good results. Further observations of these methods of therapy is certainly desirable, especially since failure to respond to stilbamidine and 2-hydroxystilbamidine has been demonstrated by some patients.

#### Indications for Surgery

Indications for pulmonary resection have been rather indefinite but it now seems possible to formulate fairly clear indications. Resection should be undertaken as a combined diagnostic and therapeutic measure in certain situations when a mass of undetermined etiology is found in the lung. There should be little if any opposition to this indication because of the satisfactory results obtained from resection and because of the low mortality accompanying operation.

If the diagnosis of blastomycosis is known before operation, an effort to cure the patient by medical therapy should be undertaken first. Probably a prolonged course of aromatic diamidine therapy should be given in an effort to eradicate the disease. If it is not cured and residual localized activity remains, or if there are cavities which fail to close, then resection of the areas involved should be performed. It would seem best in our present state of knowledge to employ 2-hydroxystilbamidine before operation and for a while afterwards, in the same way in which resection for pulmonary tuberculosis is covered by chemotherapy.

#### Surgical Treatment

Pulmonary blastomycosis sometimes occurs as a localized lesion though usually it is diffuse in the lung. In the localized lesions excisional therapy has seemed rational. It now seems reasonable to consider resectional therapy for blastomycosis in the light of resectional therapy for tuberculosis, coccidiomycosis and histoplasmosis. Thirty-two cases of pulmonary resection in pulmonary blastomycosis, including the new case presented in this paper, are reviewed herein, (Table). At first resections were usually performed for lung

**TABLE OF CASES RESECTED**

AUTHOR	AREA RESECTED	POST OP TREATMENT	OUTCOME AND REMARKS
SMITH	Right upper lobe	K. I.	Died of disseminated disease 9 mos. post-op.
	Lobe	K. I., vaccine	No follow up—recent case.
WEBB	Right lung	None	Died the day after surgery of pulmonary edema.
FELD, CADDEN	Right upper lobe	K. I. (?)	Disseminated disease to lung, etc. at 3 weeks. Died 11 mos. after onset of symptoms.
LOWRY	Right lower lobe	None	Well 5 years post-op.
HOPKINS, MURPHY	Right lung	K. I.	Spread to opposite lung 10 days post-op. Right empyema. Died disseminated disease 6 mos. post-op.
	Left lung	K. I. undecylenic acid	Developed systemic spread which responded to undecylenic acid. Well 2 years post-op.
WEISEL, LANDIS	Right lower and middle lobe	None	Well 3 years 10 mos. post-op.
	Right upper lobe	None	Well 4 years post-op.
BEUCHNER, et al	Right lower lobe	None	Well 2 years post-op.
	Right upper lobe	Blastomycin human serum K. I. 2-hydroxystilbamidine	One month later remaining right lung flared up. Rib and transverse process involvement. Thoracoplasty, responded to medical treatment. Well 18 mos. later.
CUMMINGS, et al	Right upper lobe	K. I. Stilbamidine	One year post-op. skin lesions appeared and cleared fast on stilbamidine. Well 15 mos. post-op.
HUGHES	Left upper lobe with part of lower lobe	None	Well 33 mos. post-op.
SEALY, et al	Left upper lobe	Blastomycin K. I.	After two weeks disease spread to contralateral lung—then cleared. Well 21 mos. post-op.
	Right lung	Blastomycin	Well 18 mos. post-op.
WHITE, OWEN	Left lung	None	Generalized dissemination. Died 6 days post-op.
	Right lower lobe	None	Died 18 hours post-op. in status asthmaticus.
	Left lung	None	Well 14 mos. post-op.
	Right middle lobe	Stilbamidine	Suspected spread in right lung. Well 10 mos. post-op.
KUNKEL, et al	Left upper lobe	vaccine K. I.	Infection with blastomycosis in opposite chest wall with osteomyelitis or ribs. Living with disease 3 years post-op.
	Right lung	Vaccine K. I.	Well 1 year 10 mos. post-op.
	Right upper lobe, superior segment right lower lobe	Vaccine	Well 1 year 10 mos. post-op.
	Left upper lobe, part of lower lobe	K. I. Undecylenic acid	Well 3 mos. post-op.
	Wedge resection right lower lobe. Thick walled cavity.	None mentioned in brief account	Brief presentation given in report. Well 1 month post-op.
	Right upper lobe		Well 2 years 3 months post-op. Patient diagnosed at Mayo Clinic, resected elsewhere.
ACREE, et al	Left lung	K. I.	Chest wall infection with blastomycosis and skin nodules. Died of cardiac arrest while undergoing rhizotomy for pain. Died 2-3 1/4 years post-op.
	Right lung	Vaccine K. I.	Well 5 years 2 months post-op.
	Left upper lobe	Iodides for 2 yrs.	Well 5-1 1/2 years post-op.
	Right upper lobe	None	Died 5 mos. post-op. of coronary occlusion.
	Left upper lobe	None	Died in immediate post-op. period from pheochromocytoma found at autopsy.
	Left lower lobe with large cavity	2-hydroxystilbamidine	Exudative lesion of lungs were markedly improved before surgery treated by 2-hydroxystilbamidine. Skin lesions had gone before surgery. Well 8 months post-op.
TAYLOR	Right upper lobe	Stilbamidine	Well 3 years post-op.

lesions of unknown etiology. Later, deliberate resections were performed for this disease. This type of therapy in blastomycosis is a new and relatively unexplored field. There naturally arise many questions pertinent to the response of the body to this treatment, to factors of prognostic importance, and to the indications for surgery. In reviewing these cases analyses were made in an attempt to answer these questions.

It is most interesting to see what happened when these lung lesions were resected without the support of vaccine or drug therapy. There were 10 such cases. Four deaths occurred in the immediate postoperative period. Only one of these deaths resulted from a spread. In this case, general dissemination occurred and death followed 6 days after surgery. The other 3 deaths were from severe asthma, pulmonary edema, and an unrecognized pheochromocytoma. The 6 patients surviving surgery were all well at last report except one who died of coronary heart disease 5 months after operation. Thus, resection by itself was effective treatment.

A consideration of the overall results of the 32 resections under review shows the following: About two thirds of this group were apparently cured. One patient was alive but still had blastomycosis and in one case there was no follow up. Twenty-two cases were seemingly cured.

There were 3 deaths in the immediate postoperative period, as mentioned above, from causes other than a continuation of the blastomycotic infection. There were also 5 additional deaths from blastomycosis after resection. Of these 32 cases of resection only 5 had the benefit of stilbamidine or 2-hydroxystilbamidine.

#### Recurrence after Resection

Spread of the disease after resection occurred in 11 cases or roughly one third of the group. This became manifest in one patient only a few days after surgery while in another it was a year before onset. These recurrences usually became manifest a few weeks after operation. One patient died from a spread as early as 6 days after operation. Another one is still alive with the disease under control 3 years postoperatively. In 5 cases the recur-

rence was fatal, in 5 it was apparently cured, and in one the disease is still active. Stilbamidine was used in 3 of the patients with recurrences who survived, but in none of the other recurrences. Undecylinic acid is credited with curing one recurrence. Obtaining a favorable immunologic status by blastomycin in conjunction with iodide therapy was utilized in saving another patient with a recurrence. Murphy<sup>2</sup> reports one recurrence after lobectomy which has not responded to iodides, undecylinic acid, or stilbamidine.

#### Factors of Prognostic Significance

In an effort to determine factors important to the prognosis in these cases of pulmonary resection the preoperative roentgenographic appearance of the lesion was investigated. In pulmonary tuberculosis, exudative or so called "soft" lesions have been shown to respond poorly to surgery, but "hard" lesions have responded better. Buechner, *et al*<sup>3</sup> noted in two cases of pulmonary blastomycosis that the one with a "soft" appearance developed a spread and did poorly after operation while the other demonstrating a "hard" appearance did well. They conjectured about this being of significance.

To investigate this factor further the preoperative roentgenograms of the patients in this review were divided roughly into "hard" and "soft" groups. In 23 cases it was possible to classify the lesion as "hard" or "soft". Of the 15 cases which seemed to fall into the hard group one died at the time of surgery from an unrecognized pheochromocytoma. Four of the 14 cases surviving surgery had a spread of their disease. Of those with spread 2 recovered and 2 died from a continuation of the infection. One of the latter died on the operating table, showing fairly good resistance to the disease, two and a half years after pulmonary resection. The rest were all without evidence of the disease when last heard from.

In contrast, those patients showing a "soft" picture on roentgenography comprised 8 cases in which one surgical death occurred from pulmonary edema. In the remaining 7 cases, 4 spreads occurred all within a month after surgery. One of these died from the disease, one

was alive with the disease under fair control and the other 2 were well.

From the above data it appears that the roentgenographic appearance is of prognostic significance, the "soft" lesions responding poorly and the "hard" lesions well to resection.

Another factor of prognostic significance in surgery seems to be the immunologic status of the patient. The outcome of the disease in its natural history is closely correlated with the immunologic response of the patient to it. Sealy, *et al*<sup>13</sup> have presented data showing how the immunological status of the patient undergoing surgery can be used to advantage. In order to see how the immunologic types fared under pulmonary resection the 13 cases which had immunologic studies performed either preoperatively or postoperatively were scrutinized. A simple division was made by dividing these patients into skin positive and skin negative groups. Five fell into the group with positive skin tests. This constitutes a more favorable group immunologically than the group with negative skin tests, according to Simth.<sup>14</sup> In none of these 5 was there any postoperative spread and all were well. By contrast 8 had negative skin tests and fell into the less favorable group. Half of these had spreads of the disease postoperatively and one died. Stilbamidine was only employed twice, once in each group. From this review it appears that the immunologic status of the patient bears an important relationship to his response to resection.

### Case Report

The following case comprises my experience with resection in blastomycosis. This patient was under the care of Drs. Isaac Manning, H. M. Schiebel and the author.

*History:* A 38 year old white lawyer, was admitted to Watts Hospital, Durham, N. C. on May 31, 1952. He lived in central North Carolina. He complained of a "lump in the throat" of three weeks duration especially on swallowing. For three months there had been an increase in a chronic cough that had been present for about twenty years. Ten days before admission he coughed up a small fleck of blood. Night sweats occurred once. There was mild pain in the right anterior upper part of the chest after coughing on one occasion. Fluoroscopy of the chest three months before admission had not revealed any abnormalities. He had felt tired for one month. His past

history included chronic sinusitis for 20 years and a submucosa resection.

*Physical Examination:* There was dullness to percussion over the medial half of the upper right anterior part of the chest. There were occasional rales over the posterior medial right side. There were no skin lesions.

*Initial laboratory studies:* On admission to the hospital roentgenograms of the chest demonstrated a lesion that appeared to extend out from the upper portion of the right hilum and which was dense, well circumscribed, and merged with the mediastinum at the apex of the right lung. An upper gastro-intestinal series showed a persistent indentation opposite the fourth thoracic vertebra on the right. The stomach and duodenum were not remarkable. Sputum studies for malignant cells were negative. Smears and cultures for acid fast organisms and fungi were negative. Blood studies showed normal values: R.B.C. 5,600,000; W.B.C. 8,800 with a normal differential count. A tuberculin skin test was positive in a dilution of 1:100. No other skin tests were performed. Urinalysis showed no abnormality.

During the hospital stay before operation there was no change in the clinical picture or in the appearance of the lesion. He ran a slight fever of 99° F. Esophagoscopy and bronchoscopy showed no abnormalities. We were unable to decide whether the lesion was primarily mediastinal or pulmonary. No positive diagnosis was made. Exploratory thoracotomy was decided upon and on June 9, 1952 a right thoracotomy was performed and a firm lesion in the upper lobe, which was densely adherent to the upper mediastinal structures, was found. An extra-pleural resection of the right upper lobe was performed. The mass was difficult to separate from the superior vena cava and azygos vein and at one point lung tissue was torn. Some of this was sent for frozen section, which showed inflammatory tissue. As much of the dense inflammatory tissue along the mediastinal structures was removed as could be safely excised.

The patient ran a smooth postoperative course. Sections of the pulmonary lesion showed blastomycetes as did cultures. As soon as the diagnosis was known, 48 hours after surgery, stilbamidine was started beginning with 50 mg. intravenously. The second day 100 mg. of stilbamidine and thereafter 150 mg. of stilbamidine were given daily intravenously. About 3 days following the start of this drug the patient developed a rather extensive purplish erythematous eruption over the posterior portion of the chest, and neck which cleared when pyribenzamine was administered. The patient was given a total of 4 gm. of stilbamidine over a period of 28 days. A skin test for blastomycosis 2 days after operation was positive with a papule no more than 0.5 cm. in diameter. Another skin test 2 weeks later showed an area of erythema and a papule totaling 1.5 cm. in diameter. This was considered a definitely positive test.

When he was discharged from the hospital one

month after surgery he was doing well. A trigeminal neuralgia developed several months later. He has been carefully followed and has remained well for 3 years.

### Discussion

In the past few years there have been many striking changes in the field of blastomycosis, in basic concepts of the disease itself, in drug therapy, and in the realization that resectional surgery is effective treatment. A new concept of blastomycosis has arisen to challenge the classical division of the disease into two entities, the cutaneous and systemic. The cutaneous form has been thought to be limited usually to the skin without systemic invasion. Evidence pointing to actual systemic involvement in almost all cases including the cutaneous type has recently been presented and championed by Schwarz and Baum<sup>12</sup> and Kunkel, *et al.*<sup>8</sup> They believe that the lung is the primary focus of infection. If this is proven to be true, pulmonary resection has a sound basis in that resection of the primary focus is a logical approach to the prevention of further spread and to the eradication of the disease.

At about the time when the role of resection in the treatment of pulmonary blastomycosis was being clarified the stilbamidine group of drugs appeared. They have proven to be formidable drugs against this disease but have toxic side effects and must be administered carefully. Suffice it to say that our knowledge of the benefits from applied immunology, our expanding armamentarium of drugs, and our application of excisional surgery has brought an optimistic outlook to patients afflicted with this disease.

This review of the role played by pulmonary resection in blastomycosis has demonstrated a good response to this form of treatment. It strongly suggests that, as in tuberculosis, exudative lesions in blastomycosis appear to be a factor indicating a poor prognosis. These "soft" lesions are more dangerous and the incidence of postoperative spread greater than in the "harder" lesions. A favorable immunologic status of the patient is a factor favorable to the surgical patient. The problem of postoperative recurrences can usually be successfully managed by immunologic therapy and

biochemicals, though in some patients the disease progresses despite all therapy.

### Summary

1. A review of the literature reveals 31 cases of pulmonary blastomycosis treated by resection. An additional case is reported.

2. Pulmonary resection is well tolerated and is often curative in itself. More than two-thirds of those resected survived surgery and are apparently cured.

3. Pulmonary resection is indicated in those cases of known blastomycosis in which there remain residual active localized disease or cavities that fail to close after treatment with 2-hydroxystilbamidine or stilbamidine. Resection is also indicated as a diagnostic and therapeutic measure when a mass of undetermined etiology is found in the lung.

4. Factors of prognostic importance to surgery were found. Patients whose roentgenograms showed soft lesions fared poorly after surgery, those with hard lesions responded better. Those patients falling into a favorable immunologic group responded favorably to surgery; those in an unfavorable group responded unfavorably.

5. 2-Hydroxystilbamidine and stilbamidine have apparently greatly improved the outlook in this disease.

6. Important contributions to the natural history of blastomycosis are continually being made. Also many concepts concerning the prognosis and behavior of this disease have been recently challenged.

### Addendum

Since the preparation of this article two additional cases of pulmonary resection have been noted. Kunkel, *et al* record the case of a man with a history of systemic blastomycosis extending back at least 18 years. Left upper lobectomy and resection of the superior segment of the left lower lobe were performed in 1951. Twenty seven months later he was being treated with stilbamidine for a recurrence in the left lower lobe. Smith, *et al*<sup>17</sup> report a man undergoing a left upper lobectomy in June, 1954, who made an uneventful recovery without chemotherapy.

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**OFFICE PROCEDURES**—By Paul Williamson, M. D., 412 pages. W. B. Saunders Co., Philadelphia—London, 1955. Price \$12.50.

This is a book with much sound advice concerning office procedures. The book furnishes quick references for procedures in various subspecialties written simply and primarily for the general practitioner.

Although the material is well illustrated and presented, the book, it seems to this reviewer, gives information concerning procedures best handled in a hospital or by a specialist in one of the fields covered. For instance, the chapter on cystoscopy begins "The Brown-Buerger cystoscope is an instrument which will prove valuable and which every physician should know how to use."

There is also a section on tendon repair which is probably beyond the scope of the average general practitioner with the average office equipment.

In the section on internal medicine there is a brief discussion of the technique of electrocardiography

which may just as well have been omitted.

In spite of these defects this book is a valuable book for quick reference for the general practitioner's office.

Arthur V. Williams, M. D.

**CURRENT THERAPY 1956.** Latest Approved Methods of Treatment for the Practicing Physician. Editor: Howard F. Conn, M. D. W. B. Saunders Co., Philadelphia. Price \$11.00.

This is the eighth of an annual series which has established itself as a reliable and up-to-the-minute source of information for the practitioner. Some of the material is repeated from last year's edition, but the introduction of new methods and new authors adds a freshness which maintains the reputation of the series as a very desirable practical working instrument for the man in active practice.

J. I. W.



ONE HUNDRED AND EIGHTH  
ANNUAL SESSION  
SOUTH CAROLINA  
MEDICAL ASSOCIATION  
May 15, 16, 17, 1956  
OCEAN FOREST HOTEL  
MYRTLE BEACH, S. C.  
GENERAL PROGRAM

Monday, May 14

3:00 P. M. Meeting of Council

Tuesday, May 15

9:00 A. M. Meeting of Council

10:00 A. M. House of Delegates Convenes (Ball Room)

1:00 P. M. Adjournment (Until 9:30 A. M. Wednesday)

3:00 P. M. Meetings of Reference Committees  
Wednesday, May 16

9:00 A. M.  
to

12:30 P. M. Scientific Films

9:30 A. M. House of Delegates Resumes (Ball Room)

12:30 P. M. Alumni Luncheon

3:00 P. M. Scientific Session (Ball Room)

5:30 P. M. Adjournment

8:30 P. M. Entertainment presented by Woman's Auxiliary

Thursday, May 17

(Ball Room)

9:00 A. M. Memorial Service

9:15 A. M. President's Address

9:45 A. M. Scientific Session Resumed

12:45 P. M. Luncheon Recess

2:15 P. M. Scientific Session Resumed

5:30 P. M. Adjournment

8:00 P. M. Annual Banquet for Alumni Association and Guests

HOUSE OF DELEGATES

Dr. O. B. Mayer, Presiding

Order of Business

Tuesday, May 15

10:00 A. M. Call to Order

Invocation

Report of Credentials Committee

Opening Remarks by the President

Introduction of President-Elect

Announcement of Reference Committees

Presentation of Resolutions and Recommendations

11:00 A. M. Introduction of Officers and Guests of Woman's Auxiliary

Reports of Officers

The Executive Secretary

The Secretary

The Treasurer

The Editor of the Journal

The Chairman of Council

The Delegates to the A.M.A.

Reports of Standing Committees

(The reports of the Committees will have been published in the Journal and will not be

read before the House. Any supplementary remarks by the Chairmen will be heard at this time.)

Unfinished Business

New Business

12:15 P. M. (Special Order) The Annual Meeting of the Corporation, The South Carolina Medical Care Plan

1:00 P. M. Adjournment Until 9:30 A. M. Wednesday

3:00 P. M. Meetings of Reference Committees (All members of the Association are invited to appear before the Committees considering matters in which they are interested. Meeting places will be announced.)

Wednesday, May 16

9:30 A. M. Call to Order

Reports of Reference Committees

11:15 A. M. Presentation of Annual Essay Contest Award

11:30 A. M. Annual Elections

Officers:

President-Elect

Secretary

Vice-President

Treasurer

Delegate to the A.M.A. (2-yr. term)

(The term of Dr. George Dean Johnson, expires December 31, 1956.)

Councilors: (3-yr. terms)

Third District (The term of Dr. H. B. Morgan expires)

Sixth District (The term of Dr. J. P. Cain, Jr. expires)

Ninth District (The term of Dr. D. L. Smith expires)

Members of Mediation Committee: (3-yr. terms)

Third District (The term of Dr. R. Brooks Scurry expires)

Sixth District (The term of Dr. Walter R. Mead expires)

Ninth District (The term of Dr. James H. Sanders expires)

Members of State Board of Medical Examiners: (4-yr. terms)

Sixth District (The term of Dr. E. Marvin Dible expires)

Member at large (The term of Dr. Harold E. Jervy, Jr. expires)

Members of Executive Committee of State Board of Health (7-yr. terms)

(The terms of all physician members of the Executive Committee expire this year:

Dr. W. R. Barron

Dr. Richard W. Hanckel

Dr. L. D. Boone

Dr. W. R. Mead

Dr. E. W. Camp, Jr.

Dr. Keitt H. Smith

Dr. W. R. Wallace

Members of Hospital Advisory Council to State Board of Health.

(The term of Dr. B. J. Workman expires)

(The term of Dr. Roderick Macdonald expires)

Selection of Place for the 1957 Annual Meeting

# Program, Scientific Session

## Annual Meeting

May 15th, 16th and 17th, 1956

WEDNESDAY, MAY 16, 1956

For the benefit of those doctors who will not be attending the meeting of the House of Delegates, the following scientific films will be shown at times specified in the small dining room:

- 9:15 A. M. "The Diagnosis of Uterine Malignancies"
- 9:35 A. M. "Use of the Artificial Kidney"
- 10:00 A. M. "Progressive Muscular Atrophies, Dystrophies, and Allied Conditions"
- 10:30 A. M. "Dermatoses of Industrial Workers"
- 11:05 A. M. "Nephrosis in Children"
- 11:40 A. M. "Psychoneuroses"
- 12:30 A. M. "Diagnosis of Cancer of the Stomach by Cytologic Methods"

### SCIENTIFIC SESSION

O. B. Mayer, M. D., President, presiding

- 3:00 P. M. "The Medical Aspects of Cerebral Palsy"  
Meyer A. Perlstein, M. D., Chicago, Illinois
- 3:30 P. M. "Treatment of Aneurysm and Occlusive Diseases of the Aorta"  
Denton A. Cooley, M. D., Houston, Texas.
- 4:00 P. M. Recess to visit exhibits.
- 4:30 P. M. Panel: "The Uses and Abuses of ACTH and Cortisone"  
Moderator: David F. James, M. D., Atlanta, Georgia  
Allergist: Kelly T. McKee, M. D., Charleston, S. C.  
Anesthesiologist: William S. Howland, M. D., New York, New York  
Pediatrician: Louis K. Diamond, M. D., Boston, Massachusetts

THURSDAY, MAY 17, 1956

- 9:00 A. M. Memorial Service
- 9:15 A. M. The President's Address—O. B. Mayer, M. D., Columbia, S. C.
- 9:45 A. M. "The Clinical Importance of Human Blood Groups"  
Louis K. Diamond, M. D., Boston, Massachusetts
- 10:15 A. M. "The Induction of Labor"  
C. Hampton Mauzy, M. D., Winston-Salem, North Carolina
- 10:45 A. M. Recess to visit exhibits
- 11:15 A. M. Panel: "The Newer Aspects of Blood Dyscrasias"  
Moderator: Charlton DeSaussure, M. D., Charleston, S. C.  
Hematologist: Claude Starr Wright, M. D., Augusta, Georgia  
Surgeon: C. Stuart Welch, M. D., Albany, New York  
Gynecologist: C. Hampton Mauzy, M. D., Winston-Salem, N. C.  
Pediatrician: Louis K. Diamond, M. D., Boston, Massachusetts
- 12:45 P. M. Luncheon Recess.
- 2:15 P. M. Panel: "Peripheral Vascular Disease"  
Moderator: Hiram L. Brockman, M. D., Spartanburg, S. C.  
Internist: William T. Foley, M. D., New York, New York  
Surgeon: Denton A. Cooley, M. D., Houston, Texas  
Radiologist: Harold S. Pettit, M. D., Charleston, S. C.
- 3:30 P. M. Recess to visit exhibits.
- 4:00 P. M. Clinico-Pathologic-Therapeutic Conference (see protocol)  
Moderator: F. E. Kredel, M. D., Charleston, S. C.  
Surgeon: C. Stuart Welch, M. D., Albany, New York  
Internist: William T. Foley, M. D., New York, New York  
Radiologist: Harold S. Pettit, M. D., Charleston, S. C.  
Pathologist: H. Rawling Pratt-Thomas, M. D., Charleston, S. C.

# Speakers For Annual Meeting

*W. S. HOWLAND, M. D.*



Dr. Howland was born in Savannah, Georgia, in 1919 and received his B.S. degree from Notre Dame University in 1941 and the M.D. degree from Columbia University College of Physicians and Surgeons in

1944. His graduate training included a surgical internship at Grady Hospital, Atlanta, Georgia (1944-45), Assistant Residency in Urology at the Grady Hospital (1945-46). He was Chief of the Urology Section, 121st General Hospital (U. S. Army), Bremerhaven, Germany, (1946-48) following which he took training in anesthesiology at the Presbyterian Hospital, New York, 1948-1953. Since 1953, he has been Attending Anesthesiologist at Memorial Hospital (New York), and is Associate Professor of Surgery (anesthesiology) at Cornell University Medical College and Associate in the Division of Experimental Surgery at the Sloan-Kettering Institute (New York).

*D. F. JAMES, M. D.*



Dr. James was born in Washington, D. C., in 1914. He received the B.S. degree from Catholic University in 1936, and the M.D. degree from George Washington University School of Medicine in 1940. His intern-

ship was taken at the U. S. Marine Hospital in Baltimore, and he served as Medical House Officer at the Peter Bent Brigham Hospital in Boston (1941-42). Dr. James served in the Army of the United States (1942-46) after

which he spent two years in graduate training in Internal Medicine at Grady Hospital (Atlanta). He is Clinical Assistant Professor of Medicine at Emory University Medical School, and Physician in Chief at Emory Hospital.

*W. T. FOLEY, M. D.*



Dr. Foley was born in New York City in 1911. He received his A.B. degree from Columbia University in 1933, and his M.D. degree from Cornell University Medical College in 1937. He interned at the U. S.

Naval Hospital in Philadelphia, following which he served in the U. S. Navy for eight consecutive years in the Orient. During this time he was an Instructor at Hong Kong University Medical College. Dr. Foley was a prisoner of war of the Japanese Army (1941-1945). He took a preceptorship in Vascular Disease under Dr. Irvin S. Wright (1945-1949). At present, he is Assistant Professor of Medicine at Cornell University Medical College and Chief of the Vascular Clinic at the New York Hospital, where he is Assistant Attending Physician.

*F. E. KREDEL, M. D.*



Dr. Kredel was born in Pittsburgh, Pennsylvania, in 1903. He received the B.S. degree in 1924 and the M.S. degree in 1927, both from the University of Pittsburgh, graduating from the Johns Hopkins Uni-

versity School of Medicine in 1929. He served as a Graduate Fellow in Harvard University

during the summers of 1927 and 1928. Dr. Kredel took his graduate training in the surgical residency of the University of Chicago Clinics from 1929 to 1936. In 1936, he was Senior Staff Surgeon at Pittsburgh, and has been on the faculty of the Medical College of South Carolina since 1937, where he has been Professor of Surgery since 1938, and Head of the Department since 1943. He is Surgeon in Chief of the Medical Center Hospitals.

*D. A. COOLEY, M. D.*



Dr. Cooley was born in 1920 in Houston, Texas. He received his B.A. degree from the University of Texas in 1941, and the M.D. degree from the Johns Hopkins University School of Medicine in 1944.

He had his surgical training in the residency at Johns Hopkins Hospital under Dr. Alfred Blalock from 1944 to 1950, and then served as senior Surgical Registrar at the Brompton Hospital, London, England, from 1950 to 1951 under Sir Russell Brock. Since 1951 he has been in the Department of Surgery at Baylor University College of Medicine, Houston, Texas, where he is Associate Professor of Surgery.

*M. A. PERLSTEIN, M. D.*



Dr. Perlstein was born in 1902 in Chicago, Illinois. He received his M.D. degree from Rush Medical College in 1927. After internship at Cook County Hospital, he had postgraduate training at the Illinois

Postgraduate Medical School. At present he is Professor of Pediatrics at the Cook County Postgraduate School of Medicine, Associate Professor of Pediatrics at Northwestern University, Chief of the Children's Neurology

Clinic at Cook County Hospital, Director of the Cerebral Palsy Project at Michael Reese Hospital, and Chief of the Medical Staff of the Illinois Children's Hospital-School. Dr. Perlstein is a founding member and former secretary of the American Academy of Cerebral Palsy and a past president of the same organization. He is a member of numerous professional societies, and serves as consultant to many institutions and organizations concerned with crippled children and cerebral palsy.

*C. deSAUSSURE, M. D.*



Dr. deSaussure was born at Fort Clark, Texas in 1920. He received the A.B. degree from Princeton University in 1942, and the M.D. degree from Johns Hopkins University in 1945. He interned and completed the

medical residency at Barnes Hospital, Washington University School of Medicine, St. Louis, Missouri (1945-50) and since 1950 has been practicing internal medicine, with emphasis on hematology, in Charleston. Dr. deSaussure is Associate in Medicine at the Medical College of South Carolina.

*L. K. DIAMOND, M. D.*



Dr. Diamond was born in New York City in 1902. He received his A.B. degree from Harvard College in 1923, and his M.D. degree from Harvard Medical School in 1927. During the next five years he received

graduate training in pediatrics and hematology. At present, he is Associate Professor of Pediatrics at the Harvard Medical School, Associate Medical Chief of the Children's Hospital in Boston and Director of the Hematology Laboratory and Blood Grouping Laboratory at the Children's Medical Center. He

is a consultant to numerous hospitals and a member of special committees for the National Research Council and the National Institutes of Health.

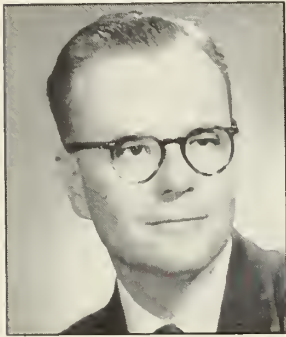
*C. H. MAUZY, M. D.*



Dr. Mauzy was born in Harrisonburg, Virginia in 1908. He received his M.D. degree from the University of Virginia School of Medicine in 1933. Following internship at Cleveland City Hospital (1933-34)

and Duke Hospital (1934-35) he underwent residency training on Obstetrics and Gynecology at the Gallinger Municipal Hospital, Washington, D. C. (1936-37) and the University of Virginia Hospital (1935-36 and 1937-38). He is now Associate Professor of Obstetrics and Gynecology at the Bowman-Gray School of Medicine of Wake Forest College, and is a member of the Attending Staff of the North Carolina Baptist Hospital, Winston-Salem, North Carolina.

*C. S. WRIGHT, M. D.*



Dr. Wright was born in Laurens, South Carolina, in 1917. He graduated from the University of South Carolina in 1939 and received his M.D. degree from the Medical College of South Carolina in 1942.

After internship at the Columbia Hospital (S. C.) of Richland County, and an Assistant Residency in Medicine at the Barnes Hospital, Washington University School of Medicine, St. Louis, Missouri, he served consecutively as Research Foundation Fellow, Baruch Fellow in Medical Research, Chief Resident in Hematology, and Julius F. Stone Fellow in Medical Research, all under the Department of Medicine, Ohio State University, Columbus, from

1944 to 1947. For the next eight years he was a member of the faculty of Ohio State University and is now Associate Professor of Internal Medicine at the Medical College of Georgia in Augusta. He holds membership in numerous clinical and research organizations and is consultant to the Oak Ridge Institute of nuclear studies.

*C. S. WELCH, M. D.*



Dr. Welch was born in Newburyport, Massachusetts in 1909. He received his M.D. degree from Tufts University in 1932 and interned in the Boston City Hospital from 1932 to 1934. He served a fellowship

in surgery at the Mayo Clinic from 1934 to 1937, receiving M.S. and Ph.D. degrees from the University of Minnesota in 1937. Dr. Welch is Associate Professor of Surgery at Albany Medical College and Attending Surgeon at the Albany Hospital. He is a Fellow of the American College of Surgeons, and a member of the American Surgical Association, New England Surgical Society, Society for Vascular Surgery, and Société Internationale de Chirurgie.

*H. S. PETTIT, M. D.*



Dr. Pettit was born in Weston, West Virginia in 1914. He graduated from West Virginia University in 1934 and received his M.D. degree from the Northwestern University School of Medicine in 1938.

He took postgraduate training in Pathology and Radiology at the Roosevelt Hospital in New York City, 1940-42, and in Radiology at the Peter Bent Brigham Hospital in Boston in 1946. He served in the U. S. Army Medical Corps from 1942 through 1945. Dr. Pettit is

Clinical Professor of Radiology at the Medical College of South Carolina, and Chief of the Radiology Services at the Medical College Hospital and Roper Hospital in Charleston.

*K. T. McKEE, M. D.*



Dr. McKee was born in Bristol, Tennessee, in 1916. He received the B.A. degree from Emory and Henry College in 1938, and the M.D. degree from the University of Virginia School of Medicine in 1941.

His training included internship at the Cincinnati General Hospital (1941-42), fellowship in Cardiology, University of Virginia Hospital (1942-43), fellowship in Allergy, University of Virginia Hospital (1946-47), assistant residency in Medicine, University of Virginia Hospital (1947-48), and service as Medical Resident and Teaching Fellow in Medicine, Roper Hospital and Medical College of South Carolina (1948-49). Dr. McKee is Associate Professor of Medicine at the Medical College of South Carolina. He is a diplomate of the American Board of Internal Medicine, and holds membership in Alpha Omega Alpha, the Southeastern Allergy Association and the American College of Physicians.

*H. L. BROCKMAN, JR., M. D.*



Dr. Brockman was born in Greer, S. C. in 1921 and received his B.S. degree from Furman University in 1942, graduating from the Medical College of South Carolina in 1944. His training has

been as follows: Rotating Internship (Roper Hospital, Charleston, S. C.) 1944-45, Internship in Surgery (Duke Hospital) 1947-1948, Assistant Resident and Resident in Surgery (both at Jefferson Davis Hospital, Houston, Texas) 1949-52, Research

Fellow in Cardiovascular Surgery (Baylor University College of Medicine, Houston, Texas) and Instructor in Surgery, 1952-54, and Instructor in Gross Anatomy (University of Maryland School of Medicine, Baltimore, Maryland) 1948-49. He served in the Army Medical Corps from 1945 to 1947. Dr. Brockman was certified by the American Board of Surgery in 1954 and at present is on the staff of the Spartanburg General Hospital and the courtesy staff of the Greenville General Hospital.

*H. R. PRATT-THOMAS*



Dr. Pratt-Thomas was born in Barnsley, England in 1913. He was reared in Sumter County, South Carolina, and received his A.B. degree from Davidson College in 1934 and his M.D. degree from the Medical

College of South Carolina in 1938. He received his internship and residency training at the Cincinnati General Hospital. He is a member of the American Medical Association, Southern Medical Association, South Carolina Medical Association, and American Association of Pathologists and Bacteriologists. He is a former chairman of the Section on Pathology of the Southern Medical Association and a member of the faculty of the Southern Pediatric Seminar. He is a diplomate of the American Board of Pathology and is the consultant in pathology at the Charleston Naval Hospital. He has written some thirty scientific articles and is a member of the national honorary scholastic medical society, Alpha Omega Alpha. Dr. Pratt-Thomas is Professor of Pathology at the Medical College of South Carolina.

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# WOMAN'S AUXILIARY

## SOUTH CAROLINA MEDICAL ASSOCIATION

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President: Mrs. C. R. May, Jr., Bennettsville, S. C.

Publicity Secretary: Mrs. N. D. Ellis, Florence, S. C.

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### TENTATIVE PROGRAM

#### THIRTY-FIRST ANNUAL CONVENTION OF THE WOMAN'S AUXILIARY TO THE SOUTH CAROLINA MEDICAL ASSOCIATION

Ocean Forest Hotel, Myrtle Beach, S. C.

May 15, 16, and 17, 1956

#### PRELIMINARY MEETINGS

Tuesday, May 15, 1956

Ocean Forest Hotel, President's Room

3:00 P. M.—Student Loan Fund Committee—Mrs. David F. Adcock, Columbia, Chairman.

4:00 P. M.—Jane Todd Crawford Memorial Nurses' Loan Fund Committee—Mrs. Bryan Michaux, Dillon, Chairman.

5:00 P. M.—Finance Committee—Mrs. George Dawson, Florence, Chairman.

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Wednesday, May 16, 1956

9:00 A. M.—Auxiliary Committee with Council of Medical Association.

11:00 A. M.—Executive Board Meeting, Mrs. Charles R. May, Jr., President presiding.

1:30 P. M.—Executive Board luncheon, Dunes Club.

3:00 P. M.—Round Table Discussion, County Presidents and Presidents-elect, Mrs. Gordon Able, Newberry, President-elect presiding. Small dining room, Ocean Forest Hotel.

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Thursday, May 17, 1956

#### Program

##### House of Delegates

Small Dining Room, Ocean Forest Hotel

9:30 A. M.—Mrs. Charles R. May, Jr., President, presiding, Bennettsville.

Mrs. Alfred Burnside, Parliamentarian, Columbia  
Timekeeper—to be announced later.

Call to order.

Invocation—Mrs. John Martin, President Anderson Co. Aux.

Presentation of Honor Guests

Reports of Officers

Recommendations from Executive Board

Reports of Committee Chairmen

Reports of County Presidents

Report of S. C. Councilor, Woman's Aux. to Southern Medical Association

Report of Credential Chairman

Report of Nominating Committee

Election of Officers

Election of Delegates and Alternates to the Annual Convention of the Woman's Auxiliary to AMA, Chicago, Ill., June 11 to 15, 1956.

Announcements

Adjournment

#### Program Meeting

Small Dining Room, Ocean Forest Hotel

Thursday, May 17, 1956—11:00 A. M.

Call to Order

Invocation—to be announced later.

The Auxiliary Pledge—Mrs. Gordon Able, Newberry, President-elect.

Welcome—Mrs. R. L. Ramseur, Conway, President  
Horry County Auxiliary

Response—Mrs. Fritz Johnson, Mullins, President  
Pee Dee Auxiliary

Greetings—Dr. O. B. Mayer, Columbia, President  
South Carolina Med. Assoc.

Presentation of Dr. Wm. Prioleau, Charleston,  
President-elect South Carolina Med. Association.

Presentation of Honor Guests

Greetings—Mrs. John J. O'Connell, St. Louis, Mo.,  
President Woman's Auxiliary to the Southern  
Medical Association

Greetings—Mrs. Robert Groom, President, Wo-  
man's Auxiliary to the North Carolina Medical  
Association.

Report of Delegate to 1955 Convention, Woman's  
Auxiliary to AMA, Atlantic City, June 1955.

In Memorium—Conducted by Mrs. H. W. Powe,  
Greenville, President-elect Greenville County  
Auxiliary.

Report of Convention—Mrs. J. K. Owens, Jr., Ben-  
nettsville, Chairman.

Report of President—Mrs. Charles R. May, Jr.,  
Bennettsville.

Report of Committee on Courtesy Resolutions—Mrs.  
James Allgood, Inman, President Spartanburg  
County Auxiliary.

Installation of Officers—Mrs. Mason G. Lawson,  
President of Woman's Auxiliary to the American  
Medical Association.

Presentation of President's Pin—Dr. Charles R.  
May, Jr., Bennettsville.

Announcements

Presentation of Gavel and Pin to Incoming President  
President's Greetings and Announcements—Mrs.  
Gordon Able, Newberry.

Adjournment

#### MEMBERSHIP LUNCHEON

Thursday, May 17, 1956

Main Dining Room, Ocean Forest Hotel—1:30 P. M.

Mrs. Mason G. Lawson, Little Rock, Ark., President  
Woman's Auxiliary to the American Medical  
Association, Guest Speaker.

POST CONVENTION BOARD MEETING—Small  
Dining Room, Ocean Forest Hotel

TIME: Immediately following Membership Lunch-  
eon

Mrs. Gordon Able, President, Presiding.



OCEAN FOREST HOTEL  
HEADQUARTERS  
1956 CONVENTION

# Committee Reports 1955-56

## COMMITTEE ON INDUSTRIAL HEALTH

In a joint meeting with the legislative committee on November 3, 1955 the question of loss of hearing in industry was discussed and it was of the opinion of those present that any legislation along this line would be premature.

The second meeting of the committee was held March 6, 1956 in Charleston, with five of the committee being present, and they would like to submit the following recommendations to the South Carolina Medical Association:

1. That industry include in its preplacement or pre-employment examinations audiometric testing to be done as part of this examination on all individuals who are required to work in a noise hazard area. Also, that audiometric testing should be done at periodic intervals as indicated.
2. That when new industry moves into an area or when old industries are being enlarged with new equipment that the noise hazard problem be considered in the procurement of equipment. The noise hazard factor should also be considered in the replacement of old machinery wherever feasible.
3. That the S. C. Medical Association suggest to the S. C. Health Department the formation of a committee on Industrial Health to promote a program of industrial health education to Management.
4. That the Advisory committee to the State Industrial Commission advise that they include in their program an educational program to Management.
5. That the Advisory committee to the Industrial Commission be put on active status and have them function as an evaluation committee of non-scheduled disabilities which are of a controversial nature.

The following is the list of members of the Committee on Industrial Health:

Dr. J. L. Hughes, Chairman	Dr. J. Hughie Crooks
Dr. W. B. Townsend	Dr. K. B. MacInnis
Dr. Izard Josey	Dr. I. G. Linton
Dr. Leslie Meyer	Dr. W. P. Beckman
Dr. G. R. Laub	Dr. T. E. Whitaker
Dr. C. W. Evatt	Dr. G. W. Hammond

## COMMITTEE ON HISTORICAL MEDICINE

This committee has continued to secure material which will some day be built into a history of medicine in South Carolina. It has not produced any publications, but seems to be approaching the time when something definite can be done about the writing of a book. The committee again requests that the Association appropriate the sum of \$500.00, to be held along with the funds appropriated previously, against the time of publication. As before, the committee reminds the Association that if the history does not materialize the funds will be returned to the Association.

J. I. Waring, M. D., Chairman  
Chapman Milling, M. D. R. M. Pollitzer, M. D.

## COMMITTEE ON SCHOOL HEALTH

The committee held two meetings during the past year. Both were in the State Health Department offices in Columbia.

The first meeting was held on Sunday, September 26. The purpose of the meeting was to discuss again the broad purposes of school health as they affect particularly the private practitioner. Further discussion of the role of the dental profession in school health plans was carried on. A final draft of a letter

to each county medical society with enclosures pertaining to the aims and practices of school health committees was approved.

The second meeting was held on Monday, January 6, 1956 in joint session with a called meeting of the Joint Health & Education Committees of the respective State Departments of Health and Education. The purpose of the particular meeting was to discuss certain rules and regulations as well as laws on the statute books of South Carolina, which pertain to school health.

Our committee was very graciously received, and our participation in the discussions of the group was warmly encouraged.

By way of introduction, Dr. Sheriff (who is on the Joint Health and Education Committee, as well as our own school health committee) summarized the history and accomplishments of the committee. This group in the past has been instrumental in publication and distribution of standard health records; in effecting establishment of emergency routines in schools; in revising standards of public school architecture with particular reference to the health and safety of the pupils; and in establishing legal qualifications for school nurses.

In the discussion of the afternoon it was pointed out that there are many laws of South Carolina relating to the health of school children which are archaic, or partly so. Many alleged deficiencies were also pointed out. It was made clear that health cannot always be legislated. There are three ways by which better health practices might be brought about: Laws; regulations; and education. There are some health and safety matters pertaining to school children that must be legally enforced. Others cannot be enforced as laws but regulations in such matters are helpful. It is probably best that most matters of school health be brought about through education. No final conclusions were reached as to specific recommendations for legislation at the session. Our committee was invited to return whenever we could to the meetings of the joint committee. The fact that Dr. Sheriff is a member of both groups assures liaison between the official state organization, and our particular committee of the South Carolina Medical Association.

In addition to the formal meetings, two members of the committee, Drs. Paul and Sheriff, represented the State of South Carolina at the Fifth National Health Conference in Chicago which was held on October 23 and 24. Our impressions from the conference were that school health techniques are definitely coming of age. Much can be accomplished by education in hygiene. Much can also be accomplished by application of modern techniques of preventive medicine in its broadest sense. The exact role of the private practitioners or of the organized medical societies in these matters depends on many variables. It was the consensus of the group which discussed this particular aspect that some liaison between schools, health departments, and organized medicine is highly desirable, and that the greater the participation of the school

health committees of medical societies particularly in the planning and deliberations of those who actually put school health into action in local communities, the more effective the plans will be, the less friction there will be between doctors and schools, and the greater will be the prestige in the all important sphere of public relations of organized medicine.

As above mentioned, letters together with packets of literature on school health were sent to each county medical society. The chairman has attempted to find out by a questionnaire letter how many medical societies have actually formed school health committees, and what activities their committees have had. Of the 37 questionnaires only four replies have been received. One reply from Rock Hill stated that a committee has been formed, but has not met. Another from Kingstree stated that the committee has not yet been appointed but is being planned. The committees in Charleston, Greenville, and Columbia have organized and are beginning to function. We have also been informed that there is a school health committee in Greenwood. It is hoped that in the next year many more committees will be formed and that organized medicine in South Carolina will at least begin to explore its opportunities in the field of school health. The committee would like to take this opportunity to express thanks to those who have started to work, and request that other local committees submit periodic reports of their activities so that we may be aware and take official recognition of them.

Respectfully submitted;  
J. R. Paul, Jr., M. D.  
Chairman

MEDICAL ADVISORY BOARD TO THE  
CRIPPLED CHILDREN SOCIETY  
OF SOUTH CAROLINA

This committee has continued to function in an advisory capacity. A meeting is held at least once a year at the time of the annual meeting of the Association.

This year the Crippled Children Society has provided one of the principal speakers for the scientific program.

It is believed that this committee serves a useful purpose, and its continuation is recommended.

- |                         |                         |
|-------------------------|-------------------------|
| Dr. J. I. Waring,       | Dr. George Dean Johnson |
| Chairman                | Dr. Joseph H. King      |
| Dr. William Weston, Jr. | Dr. Sam G. Lowe, Jr.    |
| Vice-Chairman           | Dr. E. Walter Masters   |
| Dr. John Bell           | Dr. Julian P. Price     |
| Dr. C. Guy Castles      | Dr. John A. Siegling    |
| Dr. T. R. Gaines        | Dr. W. O. Whetsell      |
| Dr. T. G. Goldsmith     | Dr. O. B. Mayer,        |
| Dr. James T. Green      | (ex-officio)            |
| Dr. Frederick E. Kredel |                         |

COMMITTEE TO STUDY THE FEASIBILITY OF  
REPLACING THE CORONER SYSTEM WITH A  
MEDICAL EXAMINER'S PANEL

Highlighting the work of this committee for the year was the meeting held in August at the Univer-

sity of South Carolina, sponsored by the South Carolina Medical Association and endorsed by the Columbia Medical Society and the Richland County Bar Association. Investigation has been underway by this committee for some years, and for the first time efforts have been successful in getting the Bar Association to work along with the doctors in this matter, not only participating, but in helping to plan for the meeting. In addition to the members of the two associations, circuit solicitors, judges, and other officials in the field of law enforcement throughout the State were invited to attend.

The speaker at the meeting on August 18th was Mr. Richard A. Myren, of the Institute of Government of the University of North Carolina. Mr. Myren is a consultant and instructor on forensic medicine, and an expert on that state's coroner problems. The findings in his report are credited with having contributed to the passing of a law in the North Carolina legislature in 1955 installing the medical examiner system on a county voluntary participation plan.

Mr. Myren's address related to the problems and solutions in regard to the coroner system in North Carolina, whose problems are very similar to those of our state, and his remarks were of great benefit in arousing interest in this problem in South Carolina.

Evidence of increased public interest in the coroner problem is being observed throughout the state, including not only doctors, but lawyers, newspapermen, and members of the lay profession as well. The Anderson County Medical Society recently had as its speaker Dr. Geoffrey Mann, Medical Examiner for the State of Virginia, with both doctors and lawyers in attendance at the meeting. The chairman of your committee has received letters from a doctor in Conway and a newspaperman in Greenville who are intensely interested in this problem, making it evident that interest is not confined to a limited group or area, but is spreading throughout the state.

It is realized that much work is yet to be done, and the objectives of your committee are: (1) More district meetings similar to the meeting arranged by the Anderson County Medical Society (2) Active participation by the local county bar association (3) Endorsement by the South Carolina Bar Association of a future study with the committee of the South Carolina Medical Association (4) A state wide meeting to be attended by the law enforcement officers comprising the various groups throughout the state (5) An intensive advertising campaign for the general public, to explain the advantages of the medical examiner panel over the coroner system.

The committee advises the following type of meeting, since it feels that organization of the various groups who should be interested in the establishment of the medical examiner's system can be best informed and the enthusiastic support toward our goal elicited.

(1) That a meeting be arranged either by the county or district medical society.

(2) That it be endorsed by the local Bar Association.

(3) That all law enforcement officers regardless of the various affiliations be invited *and urged* to attend.

(4) That a most capable speaker be engaged. (We feel that the State Medical Association should help defray expenses that may be incurred if the speaker is brought from a considerable distance.)

(5) That good press coverage be arranged so that the public can be well informed as to the purpose of the meeting, and the various advantages of the medical examiner system.

Respectfully submitted,

D. Strother Pope, M. D., Harold P. Hope, M. D.  
Chairman Joseph W. McMeans, M. D.  
H. R. Pratt-Thomas, M. D. R. F. Zeigler, M. D.

#### COMMITTEE ON INFANT MORTALITY

This committee is continuing on a program aimed toward stimulating interest in the care and problems of the premature infant. We feel that an educational approach to the problem will accomplish most at the present time. This plan was started last year by the committee headed by Dr. J. I. Waring. Nine geographically key towns were chosen as sites for seminars for both nurses and doctors. So far seminars have been held at Orangeburg, Lancaster and Florence. We plan to continue with seminars in the other locations as soon as their local societies can fit us into their schedules. The meetings have been well attended and may play a part in improving the status of premature care in South Carolina. They have been presented from the nursing, obstetric and pediatric point of view. We need to get the hospital administrator more interested in this problem.

At the annual meeting of the South Carolina Academy of General Practice, Dr. Hervey Mead arranged to have part of the program devoted to the premature infant in the form of a panel discussion. Also at this meeting, a booth on premature care was sponsored jointly by the Division of Maternal and Child Health, State Health Department and this Committee.

Through the efforts of the Division of Maternal and Child Health, reprints on oxygen therapy and its relation to retrolental fibroplasia were mailed to the doctors of the state.

We would like to thank the participants on the various programs for their effort and their time. Also, we want to thank the State Health Department, Dr. Hilla Sheriff in particular, for their cooperation and help in arranging and putting on these seminars.

A meeting of this committee is planned for late April in Columbia.

Respectfully submitted,

John C. Bonner, M. D., Chairman

#### COMMITTEE ON THE CARE OF THE INDIGENT

Whereas, Hon. James F. Byrnes, while governor of South Carolina, appointed, at the request of the South Carolina Hospital Association, a committee to study

the problem of the hospital care of the indigent patients in South Carolina, and  
 Whereas, this committee reached certain conclusions and made certain recommendations with which your present committee is not in sympathy, and  
 Whereas, these recommendations suggest the creation of a pool of some two million dollars (presumably by additional taxation), to be matched in part by federal contributions, to be turned over to the Department of Public Welfare, to be administered by them under statewide rules, and  
 Whereas, there are other suggested provisions which would further centralize the care of the indigent in Columbia, require more and more D. P. W. workers, higher and higher taxes, and contribute to the creation of an insatiable colossus, and  
 Whereas, if the townships and counties do not make better provisions for the care of their indigent than some at present do the state will surely eventually take over that responsibility, be it therefore,  
 Resolved, that the South Carolina Medical Association feels each township or county should take care of its own indigent patients, and be it,  
 Resolved, that the South Carolina Medical Association go on record hereby as urging each township or county to consider ways and means of caring properly for its indigent, and be it further  
 Resolved, that a copy of this resolution be sent to each county delegation of this state.

Norman O. Eaddy, M. D. Chairman

John T. Davis, M. D.

Wallace McNair, M. D.

#### MEDICAL EDUCATION FOUNDATION COMMITTEE

As chairman of the Medical Education Foundation Committee I wish to present, for your consideration, the following report of the activities of this committee.

When I was asked to take this chairmanship, it was my impression that there was very little need for such a committee in this state. On January 22, 1956, I attended a meeting at the Drake Hotel in Chicago of the state chairmen of the American Medical Education Foundation, and was amazed at the very grave need for a committee active and aggressive enough to raise a sum of money sufficiently large to prevent government intervention and financing of the 81 medical schools in this country.

During the past quarter century there has been a very rapid improvement in the teaching program of our medical schools. The cost has been increasing by leaps and bounds until, at the present time, it averages about \$3,600.00 per year for each student being trained to become a good doctor. The reason for this increase in cost is that the schools have had to employ more full-time professors and spend much money in improving the teaching and research facilities in each department. Also, there has been the tremendous expense of equipment for radio and closed circuit television instruction, atomic medicine, as well

as the formation of postgraduate departments with teams of faculty members travelling over the area served by the school and carrying valuable information as to the rapidly changing trends in medicine today. All of this service costs money, and, at the present time, our 81 medical schools are yearly experiencing a deficit of about ten million dollars.

Something had to be done about this situation. Therefore, five years ago industry and other lay organizations were approached, and they agreed to form the National Medical Education Fund, underwriting eight million dollars of this deficit, if the 200,000 doctors of the nation would agree to establish the American Medical Education Foundation and raise the remaining two million dollars. This would thereby eliminate government intervention.

The American Medical Association formerly made substantial contributions to this fund, but this year had to drastically reduce its donation. At the Chicago meeting numerous ways and means of raising the money were discussed. Up to the present time the only method of collection has been voluntary contributions. But, because of the fact that we have never reached our goal of two million dollars, various methods of raising the money were considered. Among them was the increase of dues to ten dollars per member. Help from the Woman's Auxiliary was welcomed. Some of the large industrial contributors are now becoming dissatisfied with our failure to support the schools that unselfishly gave us the knowledge to earn prestige in the community, the love and affection of our patients, and an ample income for ourselves. Some of them have stated that they will withdraw their contributions unless we give better support to our project.

Income from the Ford Foundation and the Commonwealth Fund are only making up a small portion of the deficit. No state supported medical school is eligible for any of the Ford money. Contrary to popular belief there is a real need for outside financial aid to state operated schools. They have to operate on a budget that is formulated once a year. There are many unforeseen departmental expenses that can not be financed without the assistance of some private agency or by federal aid. If adequately supported the American Medical Education Foundation and the National Medical Education Fund will respond and furnish generous assistance. None of this money can be used to replace any part of the expense already supplied by the budget of the state financed school.

This year contributions will still have to be on a voluntary basis, and it is hoped that the doctors of South Carolina will do their part and immediately come forth with the state quota of \$13,000.00. All money contributed to this fund is income-tax-deductible. Each contributor can earmark his contribution to be applied to the medical school of his choice, if he so desires.

Your committee met for the first time this year on February 5 in Columbia and formulated some plans of our own for raising the money. At this meeting it was decided that we would only ask for voluntary

contributions this year and, at the same time, try to inform every doctor in the state of the very real need for this fund and his contribution to it. The central office of the State Medical Association in Florence has been requested to reserve a space for a booth at the state meeting to disseminate information and receive contributions. Dr. Keitt H. Smith has charge of the booth and has enlisted members of the Auxiliary to operate it for us.

The committee heartily endorses the efforts of the Woman's Auxiliary in their "Eighty-Dimes" campaign and sincerely appreciates their part in making Medical Education Week a successful project of this Association.

A recent movie film has been made for the American Medical Education Foundation explaining the methods used in training a good doctor, with some comments on the rising cost of a medical education. Copies of this film can be borrowed or obtained at a cost of about \$25.00 each from the American Medical Education Foundation. They would be excellent for presentation to various lay organizations to give them some insight into what is required to become a doctor and the heavy cost of his education.

The committee respectfully presents this report for your approval with the added information that, up to now, South Carolina ranks among the very lowest of the states in its contributions. We recommend the approval of this report and its endorsement by the South Carolina Medical Association.

R. L. Crawford, M. D., Chairman

#### SALK VACCINE COMMITTEE

The President of the South Carolina Medical Association, Dr. O. B. Mayer, appointed three members to an Advisory Committee to represent the physicians and the Medical Association in advising the safety of the vaccine, on poliomyelitis vaccine distribution and administration.

The State Advisory Committee was set up under the direction of Dr. G. S. T. Peeples, Executive Director of the South Carolina State Board of Health.

Membership of the State Advisory Committee:

Dr. W. M. Hart, Florence, representing South Carolina Medical Association.

Dr. J. M. Albergotti, Orangeburg, representing South Carolina Medical Association.

Dr. William Weston, Jr., Columbia, representing South Carolina Medical Association.

Mr. Roscoe Langdon, Division Manager, McKesson and Robbins, Inc., Columbia, representing wholesale druggists.

Mr. John W. Davis, Columbia, representing retail druggists.

Mr. J. C. Holler, Director, Division of Instructions, State Department of Education, Columbia, representing Department of Education.

Mr. B. B. Leitzey, Florence, Assistant Superintendent Florence Schools, representing Parents and Teachers.

Dr. G. S. T. Peeples, State Health Officer and

Liaison Officer, Columbia, representing Health Agencies.

Dr. T. W. Wyatt, Drug Inspector, State Board of Health, Columbia.

Dr. G. E. McDaniel, Director, Division of Disease Control and Epidemiologist, State Board of Health, Columbia.

Dr. Wyatt and Dr. McDaniel are consultants to the Committee.

Purpose of Committee:

1. Advise and assist the State Health Officers in carrying out the voluntary control program. "It will be their responsibility to coordinate the participation of the various professional, educational, voluntary agencies, and lay groups to insure the successful operation of the program." (Quoted from bulletin from S. C. State Board of Health)
2. Percentage distribution of vaccine with public funds and for commercial sale.
3. Keep public informed through education of press, radio, television, etc.
4. Review state plan and change as is advisable.
5. Program commenced as soon as vaccine available and safe.

Dr. Peeples had been appointed by Governor Timmerman as the liaison representative between the State Advisory Committee and the National Advisory Committee.

Dr. G. E. McDaniel acted as secretary. He always had much data and information.

The first meeting was called by Dr. Peeples on July 19, 1955. The measures and policy which was formulated by the National Advisory Board were presented by Dr. W. M. Hart from Dr. Julian P. Price, as the latter is a member of the Board.

Since there were no public funds available at this time it was moved and carried that the vaccine be distributed by the manufacturers through their regular channels—i. e. wholesale houses to the druggist, which was subject to the approval of the State Health Officer to insure complete and equitable distribution.

It was moved and unanimously passed that physicians administering the vaccine follow the recommendations of the National Advisory Committee:

Priority group be adhered to and they keep a record in their office of the name, age, sex, race, and address of the individual, vaccination dates, and site of vaccination, the manufacturer of the vaccine, and the lot number of the vaccine.

Motion was passed that the parents of the children cooperate in the voluntary control plan and present those only in the priority group.

Priority Groups:

First Priority: 5-9 years and pregnant women

Second Priority: 1-4 years

Third Priority: 10-19 years

The U. S. Government allotted 30 million dollars for the purchase of the Salk vaccine. Your committee advised that 20% be directed through the drug houses for purchase as some patients would prefer to pay,

while the remaining 80% be distributed through the County Health Officers.

*Dosage:* The present recommended dosage is two doses of one cc. each at 4 to 6 weeks interval, with the third injection, one cc., a minimum of seven months or longer. It is believed it will be effective as late as 10 to 12 months after the first injection.

*Effectiveness:* More than 20 states have been conducting special studies as to the benefits of the Salk vaccine. In New York State, exclusive of New York City, the attack rate in the vaccinated is 4.0 of paralytic polio as compared to a rate of 20.9 in unvaccinated children. "There have been three paralytic cases in South Carolina among the 118,000 children who received at least one dose of the vaccine. There have been 18 paralytic cases among the 140,000 children of the same 5-9 age group who did not get the vaccine." (From State Board of Health *Polio Vaccine Comments*, November 21, 1955)

*Safety:* Members of the U. S. Public Health Service's Technical Committee on Poliomyelitis on November 17, 1955, reported, "It is the opinion of the Committee that vaccine properly made by the present methods with Mahoney strain provides an entirely safe immunizing agent." The American Academy of Pediatrics through its Executive Board, after approval by its Committee on Control of Infectious Diseases, sanctioned the Salk Vaccine as now being safe on October 4, 1955.

The priority group as of February 15, 1956, was all under 15 years of age and pregnant women. The vaccine has been and is being distributed on a county population ratio. The larger populated counties have used much more in proportion than the smaller populated counties. There were 30,000 doses given over the state in November and December, while in January there were more than 50,000 doses. A total of 135,081 doses

was given through January 31, 1956. Of this total, 66,034 were first doses, 60,720 were second doses, and 8,327 were third, or booster doses. This does not include vaccine given under the regular NFIP program of vaccinations of second grade school children. NFIP gave 22,795 doses under this program in 1955. The momentum is gaining and the people have become more confident. We trust the prevention of poliomyelitis will warrant their beliefs.

While confusion, turmoil, and misunderstanding existed at the outset, we now find tranquility, trust, confidence, and harmony with the Health Officers, druggists, parents, and doctors. Even the inocuees are not too unhappy as the reactions have been almost nil.

A complete statistical report on the vaccine that has been given thus far can be obtained from Dr. G. E. McDaniel, of the South Carolina State Board of Health.

We extend thanks to the State Board of Health Director, Dr. G. S. T. Peebles, and to Dr. G. E. McDaniel for a job well done, and our appreciation to the remainder of the committee and to our President, Dr. O. B. Mayer, for the privilege of serving on this committee.

William Weston, Jr., M. D., Chairman  
W. M. Hart, M. D.  
J. M. Albergotti, M. D.

#### COMMITTEE ON VETERAN'S MEDICAL CARE

The Committee on Veteran's Medical Care feel that the situation, nationally, has not cleared sufficiently for them to make concrete recommendations to the Medical Association. They feel that this subject is very important, and for this reason, they recommend that the Committee be continued.

Respectfully submitted,  
Lawrence P. Thackston, M. D., Chairman



## BLUE CROSS . . . BLUE SHIELD



### BLUE CROSS — BLUE SHIELD

On February 13, news was released through the newspapers of the Country that Blue Cross enrollment had passed the fifty million mark. In that connection you will be interested to know that in spite of our many difficulties, threats, and tribulations, our own Blue Cross plan had an enrollment of 213,410 on December 31, 1955.

These enrollment figures are of great significance to the medical profession. Only those doctors who have entered practice within the last ten years cannot remember the tragedy involved when the necessity for hospitalization arose in the years before 1940, and even later. Hospitalization was deferred as long as one dared. Many hospital bills were not and could not be paid. Serious illness frequently meant hospital admission on charity service, or mortgaged homes or depletion of savings.

It is very different now. Not only do people generally earn more money, but fifty million people, or one third of the people who live in the United States, have protected themselves against hospital costs by membership in Blue Cross. Others have commercial hospital insurance. These people have a feeling of security. They go to hospital early (often too early), and their hospital bills are paid. The patient, the hospital, and the doctor all are benefited.

The medical profession has had an important part in the tremendous voluntary Blue Cross movement which began twenty-five years ago. Doctors have served on national and local boards and committees. They have aided in the planning and operation of Blue Cross plans. They have recommended Blue Cross membership to their patients. They have joined Blue Cross themselves.

Blue Cross is going through a period of trial. Its

difficulties stem from increasing costs of hospital care with necessarily increased membership costs. Increased hospital costs are a part of the general increase in living costs, but they are more than that. Comprehensive studies have shown that much of the increase in the costs of medical care is due to increased and abnormal and unnecessary utilization.

That term includes and refers to hospital admissions for minor illnesses, too-long hospital stay for convenience of the patient or the patient's family, unnecessary and repetitious x-ray and other laboratory examinations, too-long-continued administration of expensive drugs.

Because over-utilization is the basis for many of

Blue Cross's difficulties, and since the medical profession is intimately tied in with such utilization, the responsibility rests largely on the shoulders of the profession in determining the fate of Blue Cross as a social-economic institution. We as doctors can wreck it—or we, through education, information, advice, and, if necessary, refusal to be a party to fraudulent or coercive practices in connection with hospital care, can help to save and to render ever stronger this humanitarian institution which has under its protective care more than fifty million of our people.

J. Dechard Guess, M. D.

Medical Director

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## Exhibitors Pages

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### WM. P. POYTHRESS & CO.

The mild sedative, SOLFOTON, and the effective antiasthmatic, MUDRANE, will be featured at the Poythress exhibit. Information and professional samples on all Poythress specialties will be available to physicians attending the meeting.

### A. H. ROBINS COMPANY, INC.

Richmond, Virginia

The Robins exhibit features the Donnatal "family" of antispasmodics, including the original tablets, capsules, the versatile elixir and the new Donnatal Extentabs, which provide all-day or all-night effects on single dosage; while the formula combined with B complex and indicated in the medical management of chronic fatigue states is available as Donnatal Plus. Also shown are Entozyme, Pabalate, Pabalate-Sodium Free and the new Pabalate-HC (Pabalate with Hydrocortisone).

### VANPELT & BROWN, INCORPORATED

Richmond, Virginia

VanPelt and Brown extend a cordial invitation to visit their exhibit where representatives will be happy to answer questions and supply clinical samples of their products.

### SEALY OF THE CAROLINAS

We expect to show the nationally-advertised Sealy Posturepedic innerspring and Sealy Posturepedic foam rubber mattresses over their matching 308 coil posture-look foundations, and we also will probably show a 28 x 52" crib size Baby Posturepedic innerspring mattress.

This merchandise is advertised in journals of the American Medical Association. A special medical discount pricing for members of the medical profession, for their own use and for that of members of their families, has been in effect for many years. The Posturepedic innerspring mattress is the original of

the currently popular firm mattresses. The Posturepedic foam rubber mattress, over its matching posture-look foundation, has been judged by a national testing company to be 50% firmer and with 75% less side sway (shimmy) than any other nationally-advertised product.

### WINTHIROP LABORATORIES

LOTUSATE: 2 grains purple Caplets, highly effective, well tolerated hypnotic providing 6 to 8 hours refreshing sleep at night. Also available in sedative doses, 1/2 grain yellow and 3/4 grain salmon colored caplets.

TELEPAQUE: highly effective and well tolerated oral cholecystopaque medium. Gives denser, clear cut pictures of the gallbladder and, in a substantial number of cases, also permits visualization of the biliary ducts.

### THE S. E. MASSENGILL COMPANY

The S. E. Massengill Company will exhibit:

SALCORT, a judicious combination of salicylates and cortisone for the treatment of arthritic and rheumatoid affections.

HOMAGENETS, the homogenized vitamins. A liquid suspension in a solid form, Homagenets may be chewed, swallowed or allowed to dissolve on the tongue. Homogenized vitamins are better absorbed, better utilized and large vitamin excesses are unnecessary.

### PFIZER LABORATORIES

The Pfizer exhibit again will be in the spotlight with its new and original concept of anti-stress, anti-infective therapy—TETRACYN S.F. and TERRAMYCIN S.F. (Stress Fortified). Also, the complete line of Pfizer antibiotics and STERAJECT as well as the new specialties, BONAMINE, TYZINE, TOCLASE and the complete line of steroid hormones in-

cluding CORTRIL and the latest corticosteriod STER-  
ANE (brand of prednisolone).

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#### MEAD JOHNSON & COMPANY

The new Deca vitamin family for the vital first decade of life will be exhibited by Mead Johnson & Company in booth No. 1. Included in the new Deca family of vitamin specialties are: Deca-Vi-Sol, for dropper dosage, a fruit flavored solution for infants and toddlers; Deca-Mulcin, for teaspoon dosage, a pleasantly-flavored liquid for preschool children of 2 to 6 years; and Deca-Vi-Caps, small, easily-swallowed capsules, for school-agers of 6 to 10 years. All three Deca vitamin specialties supply 10 nutritionally significant vitamins including A, C, and D, plus 7 important B vitamins.

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#### PARKE, DAVIS & COMPANY

Medical service members of our staff will be in attendance at our exhibit for consultation and discussion of various products. Important specialties, such as Penicillin S-R, Benadryl, Ambodryl, Dilantin Suspension, vitamins, Oxyeel, Milontin, Amphedase, Chloromycetin, Thrombin Topical, etc., will be featured. You are cordially invited to visit our exhibit.

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#### CAMBRIDGE PHARMACEUTICALS

Cambridge Pharmaceuticals, Inc.—The Company owned and operated in South Carolina by South Carolinians, invites your inspection of our booth No. 30, featuring GYNBEN—a new effective treatment of trichomonas and monilia infection.

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#### DICTAPHONE

Dictaphone Corporation will be present in full regalia. We will display the fabulous Time-Master Dictating and Transcribing Machines, featuring the Dictabelt Record that has enabled us to enjoy over 50% of all the dictating machine business in the United States.

We will also show the President Model Remote Control Dictating Machine and the amazing Dictaphone Telecord System. The incomparable Time-Master Power Control will also be featured and we feel confident that the medical men who attend will be amazed when they see and hear Dictaphone Time-Master equipment in action.

For dictating case histories, progress notes and all medical dictation, many doctors throughout the great state of South Carolina have found it possible with the aid of a Time-Master "Thought-Trap" to increase their capacity to get things done.

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#### PET MILK COMPANY

We will be pleased to have you stop and discuss the variety of time-saving material available to busy physicians. Our representatives will be on hand to discuss the merits of "Pet" evaporated milk for infant feeding and INSTANT "Pet" nonfat dry milk for special diets. A miniature "Pet" evaporated milk can will be given to all visitors.

#### A. S. ALOE COMPANY

A cordial welcome is extended to the members of the South Carolina Medical Association to visit the A. S. Aloe Company exhibit. A unique array of surgical, physio-therapy, x-ray and laboratory equipment will be displayed.

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#### LEDERLE LABORATORIES

You are cordially invited to visit the Lederle booth where our medical representatives will be in attendance to provide the latest information and literature available on our line.

Featured also will be Achromycin, Incremin, Diamox, vitamins, Pathilon, Varidase and many other of our dependable quality products.

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#### CIBA

The CIBA exhibit features SERPASIL—the original, pure crystalline alkaloid of Rauwolfia. SERPASIL has been found extremely useful as a tranquilizer in treating patients whose adjustment to life is complicated by anxiety, irritability and various psychosis. Patients feel calm, yet in properly adjusted doses retain their drive and energy. It is highly effective in many conditions where barbiturates have been commonly prescribed.

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#### U. S. VITAMIN CORPORATION

Exhibit features an entirely new, safe vasodilator drug with three unique pharmacologic actions: (1) selectively dilates blood vessels of skeletal muscle. (2) mobilizes depot blood. (3) increases cardiac output. Thus, ARLIDIN (Nylidrin HCl, NNR) is indicated in treating intermittent claudication and a wide range of functional and obliterative peripheral vascular disorders.

Professional samples and literature distributed also on our complete line of nutritional and pharmaceutical specialties.

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#### THE LANIER COMPANY

The Lanier Company, world's largest distributor of dictating equipment, will exhibit their complete line of Audograph individual dictating machines and PhonAudograph central dictation systems.

Sales representatives fully conversant with these systems and their applications will be available to discuss soundwriting applications with the convention delegates.

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#### CHARLES C. HASKELL & CO., INC.

Richmond, Virginia

The Haskell Company's ethical prescription specialties—BELBARB (antispasmodic, sedative), HASAMAL (analgesic), SILMIDATE-M (analgesic, muscle relaxant), QUERSERPIN (tranquilizer, antihypertensive)—will be exhibited. Our representatives will be present to welcome physicians and discuss any questions they might have.

#### COLUMBIA BRACE SHOP

Our exhibit will consist of a display of orthopedic shoes and braces.

#### ELI LILLY AND COMPANY

You are cordially invited to visit the Lilly exhibit located in space number 34. The display will contain information on recent therapeutic developments. Lilly sales people will be in attendance. They welcome your questions about Lilly products.

#### WACHTEL'S PHYSICIAN SUPPLY CO.

It has always been a pleasure to exhibit at the meetings of the S. C. Medical Association, and we plan to be present again this year.

Our exhibit will feature the Burdick electrocardiograph and Ultrasonic Unit as well as the Morris Debrillator-Pacemaker for use in ventricular fibrillation, external heart control, and cardiac standstill.

Our Mr. Jack Wilkins will be in attendance to demonstrate these machines, and we cordially invite all physicians and others interested to visit our booth.

#### DOHO CHEMICAL CORPORATION

DOHO CHEMICAL CORPORATION is pleased to exhibit:

AURALGAN, the ear medication for the relief of pain, otitis media and removal of cerumen.

NEW OTOSMOSAN, the effective, non-toxic ear medication which is fungicidal and bactericidal (gram negative-gram positive) in the suppurative and aural dermatomycotic ears.

RHINALGAN, the nasal decongestant which is free from systemic or circulatory effect and equally safe to use on infants as well as the aged.

Mallon Chemical Corporation, Subsidiary of the Doho Chemical Corporation, is also featuring:

RECTALGAN, the liquid topical anesthesia, also for relief of pain and discomfiture in hemorrhoids, pruritus and perineal suturing.

DERMOPLAST, in an aerosol freon propellant spray for fast relief of surface pain, itching, burns and abrasions. Also Obs. & Gyn. use.

#### WESTWOOD PHARMACEUTICALS

Lowila Cake, the only completely soap-free skin cleanser, in cake form, available to your allergic or dermatitic patients whenever soap is contraindicated. It degerms the skin as it cleanses without added antiseptics.

Gentia-Jel, the only effective gentian violet jelly you can prescribe for self treatment by the patient at home. Eliminates messy office treatments which often stain your furniture and clothing.

Spradern, a modified form of standard antipruritic lotion (with phenol and menthol) listed in the Dermatology Formulary of the Skin and Cancer Unit, New York Postgraduate Hospital. Packaged in aerosol spray containers, Spradern increases the dermatologic and esthetic value of menthol and phenol lotions.

#### TABLEROCK LABORATORIES, INC.

TABLEROCK proudly presents SENAZOL, a unique combination of both sex hormones with lipotropes, essential vitamins and necessary minerals PLUS METRAZOL, the proven safe cerebral stimulant. SENAZOL provides a multitude of factors in one dosage form for the GERIATRIC PATIENT'S multiplicity of symptoms. PRESCRIBE SENAZOL FOR EVERY GERIATRIC PATIENT . . . EVERY DAY.

#### W. T. HINNANT ARTIFICIAL LIMB CO.

The W. T. Hinnant Artificial Limb Company has been manufacturing prosthetic and orthopedic appliances for the past 20 years in the south, having our factory in Charlotte and a branch office with complete service facilities in Columbia, South Carolina. At our exhibit this year, we will have a complete line of both upper and lower extremity prostheses, and orthopedic appliances as well.

Mr. John Hinnant and Mr. John Hammond will be there in order to explain any and all phases of the prostheses that we exhibit.

#### THE WILLIAM A. WEBSTER CO.

We shall exhibit and sample our line of Supporettes only. This is a new development in suppository medication using our EXCLUSIVE water-soluble NEO-CERA BASE. No refrigeration is required as the Supporettes are stable at elevated temperatures. Break-down is by contact with rectal and vaginal fluids. No oily or fatty barriers are present to interfere with complete utilization of the medicaments in the Neocera Base. For the first time in suppository history the rectal dose is the same as the oral dose and the systemic effects are the same.

#### DRUG SPECIALTIES, INC.

The exhibit will feature Nicozol, a cerebral tonic and stimulant which has been reported on in several medical journals.

It will also feature Pentergot inserts for the treatment of Migraine, which also has been reported on in journal articles.

#### WARNER-CHILCOTT

A visit to the Warner-Chilcott booth will pay dividends, especially in the interests of your cardiovascular patients. The company is featuring two "clinically tested and proven agents": one to help you prevent attacks of angina pectoris; the other, the most potent drug currently available for reduction of blood pressure in hypertensive patients.

#### MILEX

Long Island City 4, New York

MILEX, booth 12, is proud to present its new CANCER DETECTION PROGRAM to the Members of the South Carolina Medical Association. This new program makes it possible for EVERY FAMILY PHYSICIAN to become the first line of defense in the

early detection of uterine or cervical cancer.

TRICHO-SAN for the common vaginal infections and the CRESCENT DIAPHRAGM will also be featured.

#### ABBOTT LABORATORIES

A new non-barbiturate hypnotic, PLACIDYL<sup>®</sup>, (Ethchlorvynol, Abbott) will be among the new products exhibited by Abbott Laboratories. Also shown will be NEMBU-SERPIN<sup>®</sup> Filmtabs(R), (Nembutal(R) and Reserpine, Abbott), a new sedative, tranquilizer and antihypertensive; DESBUTAL(R), new mood-improvement drug; and ERYTHROCIN(R) Filmtabs (Erythromycin, Abbott), an antibiotic providing specific action against coccie infections and minimal risk of side effects. Abbott will also exhibit IBEROL(R) Filmtabs containing intrinsic factor concentrate, B<sub>12</sub>, iron and other vitamins; OPTILETS(R) high-potency therapeutic multi-vitamins; VI-DAYLIN(R), a homogenized mixture of seven vitamins, SELSUN(R), for control of seborrheic dermatitis; PENTOTHAL(R) SODIUM, the intravenous anesthetic agent, and Abbott's complete line of intravenous solutions and equipment.

<sup>®</sup>Trade Mark

#### POSTGRADUATE INSTRUCTIONAL AND AUDIO-VISUAL PROGRAM MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA

CAROLINA HOTEL, PINEHURST, N. C.

SUNDAY, April 29, 1956

Surgical Repair of Complete Uterine Prolapse—C. H. Mauzy, M. D., Discussor.

A Normal Labor and Delivery (sound-color) by John Ashe, Jr., M. D.

Clinical Applications of Physiology of the Gastro-Intestinal Tract—W. Walton Kitchin, M. D., Chairman.

Surgical Physiology of the Stomach and Duodenum—Lawrence Owsley, M. D.

Surgical Physiology of the Small and Large Bowel—W. W. Kitchin, M. D.

Surgical Physiology of the Liver and Biliary Tract—Howard Starling, M. D.

Surgical Physiology of the Pancreas—James Davis, M. D.

MONDAY, April 30, 1956

Accessible Cancer of Cervix and Uterus—E. C. Garber, Jr., M. D., Discussor.

Pudendal Nerve Block with Intracaine and Demerol—L. M. Schadel, Jr.

G. D. SEARLE & CO.

Chicago, Illinois

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

Featured will be Mictine, the new safe, non-mercurial oral diuretic; Vallestrel, the new synthetic estrogen with extremely low incidence of side reactions; Banthine and Pro-Banthine, the standards in anticholinergic therapy; and Dramamine, for the prevention and treatment of motion sickness and other nausea.

The following will also exhibit.

American Bedding Company

American Surgical Supply Company

Thomas A. Edison, Inc.

General Electric Company

Hart Drug Corporation

Mayrand, Inc.

Powers and Anderson of South Carolina, Inc.

Sandoz Pharmaceuticals

Winchester Surgical Supply Company

Diagnostic and Treatment Problems Associated with Fibromyomata Uteri—R. T. Parker, M. D.

#### GENITO-URINARY DISEASES

Amos N. Johnson, M. D., Chairman, Garland, N. C.

Diagnosis and Diagnostic Procedures of Prostatism—F. K. Garvey, M. D.

Diagnosis of Carcinoma of the Vagina and Cervix—Robert N. Creadick, M. D.

#### AUDIO-VISUAL PROGRAM

Anatomy of the Female Perineum—Joseph Markee, Ph. D.

Wertheim's Operation—Jesse Caldwell, M. D., Discussor.

Complete Hysterectomy—Leonard Palumbo, Jr., M. D., Discussor.

#### POSTGRADUATE INSTRUCTIONAL COURSE IN TRAUMA

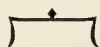
Everett I. Bugg, Jr., M. D., Chairman

Care of the Patient with Acute Brain Injury—Eben Alexander, Jr., M. D.

Care of the Patient with Fracture of the Pelvis—Ira Rapp, M. D.

Urological Complications Associated with Pelvis Fractures—Jack Hughes, M. D.

The Use of Whole Blood and Fluid in the Acutely Injured—Ivan Brown, M. D.



# Clinical Therapeutic and Pathologic Conference

TO BE PRESENTED FOR DISCUSSION AT THE CONVENTION

**Present Illness:** A 63-year old white male was admitted through the Emergency Room on November 12, 1954 at 7:40 P. M. shortly after an automobile collision. He was the driver of his car which was struck from the left by a car coming through a stop sign. He was unconscious in the emergency room but responded somewhat in the x-ray department. There was a transient right hemiplegia. A laceration of the scalp in the occipital region to the right of the midline was sutured. There was a compound comminuted fracture of the right tibia and fibula in good position. There were numerous fractures of the left ribs with pneumothorax and some paradoxical respiration.

When he was admitted to the ward the blood pressure was 80/50 and blood transfusion was started. Because of severe respiratory distress, thoracentesis was done yielding 300 ml. of blood and unlimited amounts of air. A thoracotomy tube was inserted in the second left interspace anteriorly with water-sealed drainage to relieve the tension pneumothorax. Intercostal nerve blocks were performed at the same time. The blood pressure remained at shock levels until 1:45 A. M. when it rose to 100/86 and soon became stabilized at about 130/80 but tended to drop as low as 110/70 for several days. Five ml. of bloody urine was obtained by catheter at 1 A. M. and a Foley catheter was inserted. Urological consultation was secured and cystograms showed a normal bladder without evidence of extravasation. The urinary output was 270 ml. during the first night. On successive 24 hour periods there was 1840, 780, 2130, 2300 and 1950 ml. of

clear urine.

There continued to be respiratory distress and difficulty in keeping a patent airway so that on November 15, 3 days after the accident, a tracheostomy tube was inserted under local anesthesia. Because of deepening coma, bilateral trephines were made on November 18 and a moderate amount of subdural fluid evacuated on the right without improvement of his condition. On the evening of November 17, the blood pressure was found to be 90/65 but averaged about 115/70 for the next day. On November 19, the systolic pressure remained about 90/50 until 1:30 P. M. when it became unobtainable and death occurred one hour later.

Laboratory examinations showed 4 plus sugar in the urine on admission and the blood sugar was 582. It then became known that the patient was a mild diabetic taking 15 units of insulin per day. The blood sugar was down to 190 on the evening of November 14 under insulin coverage but control remained difficult. Blood chemistry on November 18 showed chlorides 480 mgm., sodium 324 mgm. and potassium 22.6 mgm. The CO<sup>2</sup> combining power was 59 volumes per cent. The spinal fluid on November 15 showed an opening pressure of 180 mm. of fluid, no cells and protein 28 mgm.

The patient's course during the final several days was essentially that of continued dyspnea and pulmonary congestion, deepening coma with right hemiplegia and terminal hypotension. The rectal temperature varied between 101 and 103 degrees.

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## PLANS FOR PUBLIC HEALTH MEETING ANNOUNCED

The South Carolina Public Health Association meeting for this year promises to be one of the very best in the history of the Association," according to Mrs. Blanche R. Speed of Greenville, president.

The program committee, Miss Betty Ficquett, chairman, announces that the speakers to appear on the program are among the most outstanding in pub-

lic health and other fields.

Dr. George A. Bunch, chairman of the arrangements committee, stated that the entire meeting will be held at the Francis Marion Hotel in Charleston April 19 to 21. General registration will be from 8:30 a. m. until 2:00 p. m. April 19. The first general session will begin at 2:00 p. m.



DR. O. B. MAYER  
*President*



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# Officers

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DR. WILLIAM WYMAN KING  
*Vice-President*



HOWARD STOKES, M. D.—*Treasurer*



ROBERT WILSON, M. D.—*Secretary*



DR. WILLIAM HUTSON PRIOLEAU  
*President-Elect*





## PRESIDENT'S PAGE

The Annual Meeting is only a month away. All the major arrangements have been completed. The Scientific Committee, composed of Dr. Henry W. Mayo, Jr., Chairman, Dr. J. Sam Garrison, and Dr. W. M. Bryan, Jr., has worked diligently and has arranged a fine program, primarily around panel discussions of interesting subjects. Several unusual scientific exhibits and commercial exhibits will add further attraction.

We have been very fortunate in securing Dr. George F. Lull, Secretary of the AMA to be banquet speaker on Thursday evening. This should be an outstanding event. Plans are in the making for the other evenings entertainment by Mr. Meadors.

I look forward to seeing you and your wife at Myrtle Beach, May 15-17. Reservations should be made early.

It has been a privilege and honor to be your President. As opportunity occurred, I visited Medical Societies over the State, and was thrilled to find the scientific interest and feel the cooperation and unity that existed.

A great service was rendered the people of South Carolina by the repeal of the Naturopathic Act. The determination and endless effort of the members was most commendable.

May I take this occasion to thank each of you for your cooperation and interest. The South Carolina Medical Association is destined to go forward. I extend every good wish to the members of the Association and the new officers.

Sincerely,

O. B. MAYER

# Editorials

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## CONVENTION CALL

What makes a convention click? attendance? business? scientific program? social events? relaxation? old friends? new friends? beautiful beach weather? For our 1956 convention at Myrtle Beach we can guarantee all except the last, and we hope heartily for that.

Of recent years the annual conventions have run smoothly and efficiently, with much business transacted and much good information spread. Social events have been pleasant and a good time has been had by all. Most of the smoothness of performance has been due to the efficient efforts of Jack Meadors, assisted ably by the financial and other contributions of the exhibitors.

This promises to be the biggest and best of all of our one hundred and eight annual meetings. Come for your share of knowledge, fun, and work.

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## FALLACY OF FALLOT

There is no criticism of a man who achieves eponymic fame for a "new" account of a disease or a syndrome, when he or his promoters are unaware that his contribution has been made already by another.

In this period of rapid development of surgery of the heart, the tetralogy of Fallot has become a fairly well known condition. Described in 1888 by A. Fallot in *Marseille Médical* it has established a firm claim on the name now generally accepted. Yet it appears that the anatomical abnormality so designated was described many years before the time of Fallot by Edward Sandifort, a Dutch physician who wrote "*De rarissimo cordis vitio*" (1777) which was the same pathological condition which had the name of Fallot attached to it in later years.

There are many medical people who object to the use of eponyms in medicine. These name-plates would seem to have a certain value, but whatever their desirability may be,

if they are to be used, they should surely have the proper element of accuracy and veracity.

As for this journal, it will make a probably fruitless effort to replace Fallot with Sandifort whenever the editorial occasion arises, so that credit may be given where it belongs, but without prejudice to the acuteness of Fallot's observations.

Bull. Hist. Med.—20 (1946): 539.

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## NATUROPATHIC LAW REPEALED

A long hard Legislative fight by the South Carolina Medical Association was concluded successfully on February 21, 1956, when the Senate gave third reading and final passage to the Bill to repeal the Naturopathic Licensing Law in South Carolina. The end came suddenly after approximately two hours of debate, which at times had all the earmarks of the beginning of an extended and determined filibuster by our opponents. Several amendments were proposed, all of which were defeated by a wider margin than any of the votes at earlier stages. Then Senator Lewis Wallace of York took the floor, followed by Senator Leppard of Chesterfield and Ellison of Lexington. Motions to adjourn were made from time to time by one or the other of these, without success, and after the resounding chorus of "No's" which greeted Senator Ellison's final motion for adjournment while he had the floor, the opposition threw in the sponge. The question then being on final passage of the Bill, it was put, without a roll call. There were many "ayes" and actually not a "no" was heard.

The whole effort to accomplish passage of the measure had taken a little over a year. The Bill was introduced in March, 1955, passed the House of Representatives, received a first reading in the Senate, action by the Senate Committee on Medical Affairs and ran into a filibuster on the floor of the Senate, all in the 1955 session. It was then deferred, in the last few days of the session, under special order for a

vote not later than twelve o'clock noon, January 25, 1956. That date was postponed two weeks because of conflict with an election of an Associate Justice of the Supreme Court, fixed for the same time; but the postponement was not made without again fixing the vote for a definite time, February 8. The Bill received second reading in the Senate that day after vigorous and determined effort on the part of the opposition to further delay, amend or recommit the Bill. About seven motions were defeated, one after the other, some of them by rather narrow margins. There remained only the action on February 21 to finish the job. Senator James Hugh McFaddin of Clarendon, actively leading the fight for the Bill throughout, spoke vigorously in favor of its passage. It was the first time the proponents had spoken at length in debate, because the strategy of the situation previously had not required it. Along with Mr. McFaddin, Senators L. Marion Gressette of Calhoun, W. Ed Myrick of Allendale, Allen Legare of Charleston, and Lawrence Hester of McCormick were at all times active on behalf of the Bill; and Senators Rembert Dennis of Berkeley, H. B. Richardson of Sumter, Grant of Chester, Lawton of Hampton, Long of Union, Mars of Abbeville, Michaux of Williamsburg, Morrah of Greenville, Morrison of Georgetown, Spigner of Richland, Stevens of Horry, Paul Wallace of Marlboro, West of Kershaw, and Marshall Williams of Orangeburg were consistent and faithful in their support.

We had been confident of passage of the Bill when it came to the final vote. There was always the danger, however, of further filibuster and of the adoption of some amendment. Virtually all of the activity of the opponents this year was directed to an effort to have some amendment adopted which would serve to draw the teeth from the provisions for repeal. It was this activity which gave rise to rumors at one time that a compromise might be reached. Actually there was no consideration of compromise by our leaders in the Senate or the officials of the Association. An apparently harmless amendment proposed on the final day, which would have postponed the effective date of the measure to January 1,

1957, if adopted, would have required the Bill to go back to the House; and this might have been exceedingly dangerous in view of the plans for a short session. It was defeated, as were all proposed amendments, and the Bill was passed finally just as it came from the House last year. The only amendment adopted in that body was that, to which we agreed, providing for examination by the Board of Medical Examiners of one or two individuals who may be able to qualify as applicants under its terms.

The Act was signed by Governor Timmerman and became effective as law on February 27. Threats from several naturopaths of legal action to test its validity were immediately reported in the newspapers. On March 13, a Petition was filed with the Supreme Court and a temporary restraining order was signed by Chief Justice Stukes, enjoining the Attorney General and other law enforcement officials from taking any action against the naturopaths under the law, pending a decision by the Court. The Complaint in the action has not been filed as this is written, but obviously the attack will be on constitutional grounds.

Similar steps were taken in Tennessee when the repealing statute was passed in that State. The legislative action was upheld by the Supreme Court there, and we are confident that the result will be the same in South Carolina.

It is of interest to note, also, that a similar Act was adopted in Georgia in January, outlawing the practice of Naturopathy in that State.

M. L. M.

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## MEDICAL EDUCATION WEEK

In the first nationwide observance of Medical Education Week, April 22-28, the county medical societies have joined with the medical colleges and other allied medical and health organizations in this area to present a community-wide program of information.

Specifically, Medical Education Week has three functions: (1) to focus national attention on the significance of medical education and the problems of medical schools; (2) to

bring home to the public the contributions of medical science to American life, and (3) to foster public interest, through wide public knowledge, in the private support of medical education.

These three goals can be achieved through the use of all media of communication: newspaper coverage and editorials, radio and TV interviews, medical school open houses, and presentations to civic and fraternal groups. These goals will be achieved, however, only if our entire membership comes forth to participate. Medical Education Week is a mass education campaign requiring the manpower of our entire society.

These are the facts to be dramatized: the nation's 81 schools are enrolling and graduating more physicians and providing greater research facilities than at any time in history. Translating these achievements in terms of community understanding, they mean the United States, largely because of its excellent medical schools, will continue to be the healthiest nation in the world. A healthier people, protected by expert medical care, attains maximum industrial production, peak efficiency in the armed forces, and increases earning power.

Medical Education Week will stress the *positive* picture of the medical schools' selfless contributions to the American people. In turn, it will overcome the myths and false impressions identifying the schools as the "closed shops" of the medical profession. With the cultivation of an appreciative public, we believe the financial plight of medical education will be eased.

The AMA, the Association of American Medical Colleges, the National Fund, and the American Medical Education Foundation, national sponsors of the Week, are providing the national promotion through syndicated news features, magazine articles, network radio and TV programs; it is up to our society to come out and "sell" the observance locally.



## HOW ARE YOUR PUBLIC FRIENDS AND RELATIONS?

This is what they think about us—

From the *Seneca Journal* Feb. 8, 1956

"Call The Doctor, But Not After Midnight

It has been reported that in many cases doctors are now making an extra charge if called out at night past the hour of 12 midnight.

Without disputing the fact that a regular diet of such calls is an untasty matter, the point remains — when did mercy assume a time limit?

Are we to tell our children: "Don't get sick after midnight, darlings, it costs an extra two bucks?" Is there any method to keep an appendix from being troublesome between the hours of midnight and 8 a. m., or to delay any of a batch of ailments that hit suddenly during the wee small hours?

We have come a long ways from the days of the old medical doctor who swore his duty to man-kind, come hell or high-water.

No wonder there's so much agitation in many circles for so-called "socialized medicine." With this "extra" after midnight, and other fancy (and especially high-priced) stuff, the modern medicine-man is bringing it on himself!"

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The Farmer from Quietude, O. L. Warr, wrote the following paragraph in his column in *The News and Courier*, February 5, 1956:

"Not so many moons ago I sat in a medical clinic, located out in the anonymous blue yonder and a right good piece from here, waiting my turn to get a pillbox refilled for another person. Waiting also was a patient who had spent a few days and nights at the clinic, which was equipped with facilities for that sort of treatment.

The patient felt that he was well enough to go home. His family had come to carry him there. He was dressed and ready to go.

Only the permission, or perhaps I should say the approval, of his doctor was awaited. That worthy gentleman was repeatedly interrupted during his careful examination, not of the physical condition of the patient who sat quietly

in a corner, but of the provisions of the patient's insurance policy, spread open upon his desk.

At last he seemed satisfied with what his scrutiny disclosed. He folded the policy and crammed it into a drawer piled with others.

'I think you'd better stay here two more days,' he said, and in his voice was a tone of professional finality as he turned his attention to the ill and the policies of other waiting patients."

# CORRESPONDENCE

Dear Doctor:

Each year the operating deficit of our eighty medical schools approximates \$10,000,000, and unless this deficit can be eliminated, American Medicine, as you and I have known it, will be a thing of the past.

To meet the need of our medical schools for additional financial support, two committees were created. The American Medical Education Foundation, or A.M.E.F., was established and sponsored by the American Medical Association to raise funds from the medical profession. The National Fund for Medical Education was organized to seek contributions from business, industry, and other segments of our society.

Industry, we are assured, can raise \$8,000,000 and has expressed a willingness to do so provided the medical profession can raise the remaining \$2,000,000. Since there are over 200,000 physicians in practice in the United States, a contribution of only \$10.00 per physician would insure the necessary two million dollars.

The contributions from doctors in South Carolina have been exceedingly small. The total in 1954 was \$4,546.00 from 152 physicians. This means that only approximately 11% of the members of the Association made a contribution to the Education Foundation in 1954, and the total sum contributed amounted to an average of about \$3.30 per member.

South Carolina is not alone in this respect. In view of the poor record at least one large and prominent corporation voted last year to cancel its annual contribution of \$50,000, feeling that until the doctors could support their own educational institutions more adequately, they could hardly expect Industry to do so.

Please mail your check as promptly as possible to the undersigned and the amount will be credited to your medical school unless you indicate otherwise.

Sincerely yours,  
R. L. Crawford, M.D., Chairman  
State A. M. E. F. Committee

# SOCIETY MEETINGS

## SPARTANBURG COUNTY MEDICAL SOCIETY

At the regular Spartanburg County Medical Society meeting on February 28, Dr. Ivan Brown, Associate Professor of Surgery at Duke University, was the speaker. His talk illustrated with slides was on Transfusions and Blood.

The dangers of transfusions were pointed out and cases to illustrate were shown. As long as human beings are laboratory technicians, errors, even though occasional, are bound to occur. Patients with the same or similar names may receive the wrong blood. An interpretation of the Rh factor may be erroneous the first time. Even though major factors may be correct—minor ones may be overlooked. A patient who receives the wrong blood will usually begin to ooze blood from all denuded surfaces. This has been proved to be caused by an almost immediate diminution in the platelet as well as the white cell count. The cause of death is usually lower nephron nephritis and every effort to tide the patient over until the lining of the nephrons is restored must be made. Immediate steps are trained toward restoration of renal flow and correction of shock. No vasopressor drugs should be given because all of them function by narrowing the lumen of the arterioles and that is what has already happened in the kidneys. Intravenous glucose 10%-15% in water should be given fairly rapidly for 2-3 hours—if no result it should be stopped.

Magnesium sulphate should be given cautiously. When and if it is obvious that the kidneys have shut down completely:

Water intake should be limited to from 850 to 1200 ml. in 24 hours.

High protein diet should be allowed.

High caloric emulsion diet should be given.

Rice (not really necessary, but Dr. Brown said nearly all diets originating at Duke have rice in them).

200 Gm. Peanut oil	{	Volume 1,000 Ml. 2,100 calories	Give through small stomach tube
50 Gm. Dextrose			
20 Gm. Tween 80			
650 Ml. Water	{	Low output of protein, but high in calories.	

Testosterone

Correct severe acidosis

Intestinal or intermittent peritoneal irrigation.

Replace electrolytes and water if diuresis occurs.

This condition—anuria from wrong blood—is reversible if the patient can be sustained long enough. One patient was anuric 30 days and was maintained on the regime outlined above.

Platelets can now be separated in a fractionator from the red and white cells. They are the best presently known means of restoring to normal the



## New Intravaginal Applicator for Improved Treatment of Vaginitis

*The restorative treatment of vaginitis with Floraquin is now further improved by a new aid to tablet insertion. Faulty insertion is no longer a failure factor in therapy.*

The new Floraquin applicator is designed for simplified insertion of Floraquin tablets by the patient. This plunger device, made of smooth unbreakable plastic, places the Floraquin tablets in the fornices and thus assures coating of the entire vaginal mucosa as the tablets disintegrate. The patient inserts two Floraquin tablets with the applicator in the morning and also two tablets at night, with treatment being continued through at least two menstrual periods. During menstruation it is desirable to increase medication to eight tablets daily to combat the alkalinity of the menstrual flow.

Warm acid douches (2 ounces of 5 per cent acetic acid or white vinegar to 2 quarts of

warm water) may be taken as often as desired for hygienic purposes.

Floraquin contains Diodoquin® (diiodo-hydroxyquinoline, U.S.P.), the safe and effective protozoacide and fungicide. Lactose, anhydrous dextrose and boric acid are included to help restore the normal acid pH of the vaginal secretions. Such an acid vaginal medium then encourages the growth of normal flora and makes the environment unfavorable for pathogens.

A Floraquin applicator is supplied with each box of 50 (a new package size) Floraquin tablets. G. D. Searle & Co., Research in the Service of Medicine.

New Floraquin Applicator and commercial package of 50 Floraquin tablets available on request to . . .

**SEARLE**

P. O. Box 5110, B  
Chicago 80, Illinois

generalized oozing of a person who has received the wrong blood.

The new separator works much like a cream separator but it is many times more complex. Blood is received by gravity into a cooling machine through plastic tubes—all steel surfaces are coated with silicone to minimize destruction of blood cells of all kinds. It is cooled rapidly because elements of blood especially lipoproteins are altered immediately upon leaving the body and cooling lessens considerably this alteration. The blood is centrifuged away from air at very high speed and the different cells—white, red, and platelets—flow into separate plastic bags.

Dr. Brown showed a picture of a small simple plastic bag with a coil of plastic tubing in it which can oxygenate to the point of saturation a pint of blood in one and one-half minutes. With this simple device, a patient has been kept alive for two and a half hours while the heart was opened and repaired.

Dr. Brown stated that within a matter of only a few years he felt certain that blood could be stored indefinitely by a sort of suspended animation. Drawn into a bottle containing salt solution and glycerin as an anti-freeze and stored at -20 degrees centigrade the blood elements especially the red cells would remain usable.

When asked about the anti-hemophilic factor of blood, Dr. Brown stated that it can be separated but that it has a strange but strong affinity for the homologous serum antigen and no way has yet been devised to separate the two. Frozen serum for the use of hemophiliacs was recommended where it could be obtained.

The practical uses of blood as well as the pitfalls were most interesting. The new ideas and a glimpse into the future of blood were even more so.

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## DEATHS

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### DR. JOSEPH SUMTER RHAME

Dr. Joseph Sumter Rhame, a retired Charleston physician and surgeon, died March 4, 1956 at his residence. He had been in declining health for some time.

Active in medical and civic affairs, Dr. Rhame was born in Camden, Jan. 1, 1885.

He attended Camden public schools and also studied under a private tutor. He attended the Medical College of the State of South Carolina, graduating in 1908.

Dr. Rhame served his internship at Roper Hospital and had served as chief of staff at that institution.

Dr. Rhame also attended surgical clinics in Europe for almost a year, returning to Charleston in 1910 to begin a practice of medicine and surgery.

He was a member of the surgical faculty of the Medical College, having taught abdominal surgery at the college for a number of years.

He retired from active practice in October, 1954.

He was a member of the American, Southern, Tri-State and the South Carolina Medical Associations.

He was a former president of the Medical Society of South Carolina.

Dr. Rhame had many fraternal affiliations, being a charter member of Tau Chapter of Phi Chi, Medical Fraternity, a Mason, a Shriner and an Elk.

He also held membership in the New England Society, Charleston Country Club and for several years was a member of the Rotary Club.

He was a former member of the Board of Commissioners of Roper Hospital, a Fellow of the American College of Surgeons and a member of the Southern Surgical Association.

During World War I, he served as a lieutenant in the Naval Medical Corps and after the war continued as a member of the reserves. He played a major role in the organizing of a Naval Reserve specialist hospital unit and in 1939 was promoted to the rank of commander.

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### DR. EDWARD WITHERSPOON BARRON

Dr. Edward Witherspoon (Ned) Barron, 79, died March 14 at the Clarendon Memorial Hospital following an illness of a week.

Dr. Barron was born in Manning Feb. 13, 1877. He received his education in the Manning Schools and graduated at the Medical College of South Carolina. He practiced medicine in Salley for two years, then came to Manning where he followed his profession until he entered the U. S. Army in World War I. Following his release he went to Boston where he specialized in pediatrics and upon graduation there went to Columbia where he practiced until his retirement 11 years ago.

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### DR. E. Z. TRUESDELL

Dr. E. Z. Truesdell, 77, veteran physician and outstanding citizen of Bethune, died at his home on February 14, after an illness of two days.

A native of Kershaw county, he had practiced medicine in his native county for 41 years prior to his retirement in 1951. During much of the time, he was the only physician in a large part of eastern Kershaw county. He was graduated from the Medical College of South Carolina in 1911, and took post graduate work in eye, ear, nose and throat.

He was a member of the Kershaw County, South Carolina and American Medical Associations and a 50-year member of the Lynchwood Masonic Lodge, a Shriner and member of other Masonic bodies.

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## NEWS

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Dr. John K. Webb of Greenville was named president-elect of the Tri-State Medical Association at its annual meeting held in Charlotte in February. Dr. R. L. Crawford of Lancaster, Dr. William A. Johns of Richmond, Va., and Dr. R. R. Ross of Chapel Hill, N. C. were elected to serve as vice-presidents of the association. Dr. R. B. Davis of Greensboro was elected secretary-treasurer. These officers will be installed in 1957.

Dr. Roy B. McKnight of Charlotte was installed as 1956 president at the concluding session.

Dr. Asa Paul Traywick of Cameron was honored by his patients for 50 years of service to his community as doctor of medicine and friend. The presentation of a silver tray and bronze plaque was made on March 4 by representatives of the Young Men's Business Club, who initiated the plan to honor Dr. Traywick.

Dr. C. B. Harrell, Rock Hill physician, brought to a close his 58-year career as a general practitioner when he retired on March 1st.

A native of Webster County, Georgia, he graduated from Atlanta Medical College, now a part of Emory University. He went immediately into service as a medical officer in the Army in the Spanish-American war.

Before coming to Rock Hill in 1929 Dr. Harrell practiced in Colquitt County, Georgia, for 26 years and in Union, S. C. for a short time.

Diagnosis of virus diseases at the State Board of Health's hygienic laboratory is now possible.

Dr. Eleanor Winthrop Townsend, a clinical pathologist and virologist will be in charge of all technical services in the laboratory.

Dr. Townsend comes from the Veterans Administration hospital at Salisbury, N. C., where she was chief of laboratory services.

She graduated from the Medical College at Charleston in 1927 and served on the faculty there from 1931 to 1940.

She was assistant pathology and bacteriology professor at the Emory University Medical School from then until 1950, and has been connected with hospitals in Michigan and Kentucky and has been in the Navy Medical Corps.

Dr. B. J. Workman, Sr., veteran physician and surgeon of Woodruff, has been elected to the rank of "Qualified Fellow in the International College of Surgeons."

Dr. Workman was selected for the honor at a meeting of the Executive Council of the United States Section, February 18.

The degree will be conferred on Dr. Workman at the next annual congress of the organization.

Dr. and Mrs. George Cullen Battle were presented a gift of silver at a drop-in given for them February 10, in recognition of Dr. Battle's 22 years of service at the South Carolina Sanatorium. Dr. Battle retired as a member of the medical staff on Jan. 1, and the gift was presented by his fellow workers.

Dr. and Mrs. Battle plan to move into Columbia and will be at home at 1819 Senate Street.

Dr. William H. Chapman of Whitney celebrated his 75th birthday March 3.

Dr. Chapman has served the Whitney community and surrounding areas for almost 50 years as a physician. He was the county's Doctor of the Year in 1950.

Dr. Samuel B. Nadler, a professor of Medicine at Tulane University addressed the Anderson County Medical Society on the subject of "Fluid and Electrolyte Balance" on February 14 at the Calhoun Hotel.

Hugh Smith, M. D. has announced the association of William W. Pryor, M. D., Diplomate of the American Board of Internal Medicine in the practice of Internal Medicine at 206 East North Street, Greenville, S. C.

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## ANNOUNCEMENTS

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### ANNOUNCEMENT OF REGULAR CORPS EXAMINATIONS FOR MEDICAL OFFICERS UNITED STATES PUBLIC HEALTH SERVICE

A competitive examination for appointment of Medical Officers to the Regular Corps of the United States Public Health Service will be held in various places throughout the country on June 12, 13, 14, and 15, 1956.

*Appointments* provide opportunities for career service in clinical medicine, research, and public health. They will be made in the ranks of Assistant and Senior Assistant, equivalent to Navy ranks of Lieutenant (j.g.) and Lieutenant.

*Entrance pay* for an Assistant Surgeon with dependents is \$6,017 per year; for Senior Assistant Surgeon with dependents, \$6,918. Qualified officers are promoted at regular intervals.

*Application forms* may be obtained from the Chief, Division of Personnel, Public Health Service, Department of Health, Education, and Welfare, Washington 25, D. C. Completed application forms must be received in the Division of Personnel *no later than April 30, 1956.*

The Seventh Nalle Clinic Foundation Lectures will be presented at the Veterans Recreation Center, Charlotte, North Carolina, on Friday, April 20, 1956. At 5:00 P. M. Dr. W. E. Kittredge will deliver an address on the topic, "The Significance of Congenital Anomalies of the Genito-Urinary Tract in Children." Dr. Kittredge is Associate Professor of Urology at Tulane University and a member of the Department of Urology of the Ochsner Clinic in New Orleans, Louisiana.

At 8:00 P. M. on the same evening Dr. R. Gordon Douglas will deliver the Seventh Brodie C. Nalle Lecture. His subject will be, "Premature Separation of the Placenta." Dr. Douglas is Obstetrician and Gynecologist-in-Chief of The New York Hospital and Professor of Obstetrics and Gynecology at Cornell University.

## SURGEONS TO HOLD SOUTHEASTERN REGIONAL MEETING

The United States Section of the International College of Surgeons will hold a Southeastern regional meeting in the Read House, Chattanooga, April 30 and May 1.

The program will include the presentation of 17 scientific papers, three panels, dinner and luncheon with speakers, and exhibits.

## THE THIRD NATIONAL CANCER CONFERENCE

The American Cancer Society and the National Cancer Institute of the Public Health Service, Department of Health, Education, and Welfare, will jointly sponsor the Third National Cancer Conference in Detroit, Michigan, June 4, 5, and 6. More than a thousand research scientists and clinicians, including many from foreign countries, are expected to attend.

The following short courses will be conducted at The Children's Hospital of Philadelphia in May and June 1956.

1. PEDIATRIC ADVANCES FOR PEDIATRICIANS AND GENERAL PRACTITIONERS. May 28 through June 1, 1956. A Refresher Course conducted by the Staff of the Children's Hospital of Philadelphia, in collaboration with the Department of Pediatrics of the University of Pennsylvania and the Camden Municipal Hospital. Tuition—\$100.00.
2. PRACTICAL PEDIATRIC HEMATOLOGY. June 4, 5 and 6. Conducted by Dr. Irving J. Wolman and other members of the Hematology Department of the Children's Hospital, under the auspices of the Graduate School of Medicine, University of Pennsylvania. Tuition—\$60.00.
3. BLOOD GROUP INCOMPATIBILITIES AND ERYTHROBLASTOSIS FETALIS. June 7 and 8. Conducted by Dr. Thomas R. Boggs, Jr. of the Philadelphia Serum Exchange of the Children's Hospital of Philadelphia, under the auspices of the Graduate School of Medicine, University of Pennsylvania. Tuition—\$50.00.

For information write to Irving J. Wolman, M. D., Children's Hospital of Philadelphia, 1740 Bainbridge Street, Philadelphia 46.

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# SCISSORISMS

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## THE MAYO CLINIC

*Poem of a gratified patient*

Well, I've been through the Mayo Clinic  
I've seen what there was to see  
I'm homeward bound on the Red Bird  
And it's quite all right with me.

I've stood in line at the window  
I've sat with the waiting throng  
And a man from Maine has explained about  
His spleen which it seems was wrong.

Strangers have spoken of tumors  
Of bowels that wouldn't work  
Of livers and lights and bladders  
And knees that refused to jerk.

And a woman from Oklahoma  
Revealed some things so broad  
That I certainly hope they are only known  
To her, and me, and God.

I've had both sizes of bottles  
I've saved with a miser's zest  
I've toted them proudly around with me  
And compared them with the best.

I've draped myself in a linen sheet  
I've donned my clothes and then  
I've draped myself in a little cape  
And donned my clothes again.

I've never changed my clothes so much  
At least not to the skin  
Since the days my mother undressed me  
With a single safety pin.

They've punctured, and probed, and prodded  
They have diagnosed my heart  
They couldn't know more about me  
If they'd taken me apart.

I've laid in bed in St. Mary's  
Where they termed me an interesting case  
And they've stood around and discussed me  
As though I were not in the place.

I've fought with the dietician  
For the grub had no salt worth the name  
And they fed me on spinach and carrots  
And my friend with the gout got the same.

A nurse stayed with me each hour  
For five or six nights, or more  
Which I'm here to assert is going some  
For a man of fifty-four.

A woman physician examined me  
The result may be inferred  
It may have been *grand* for the record  
But the blood pressure—Oh my word!

I furnished unaccountable pressure  
I furnished a beautiful chart  
And we all knew as much at the finish  
As all of us knew at the start.

Yes, I've been through the Mayo Clinic  
I'm ready to go and get packed  
I'm homeward bound on the Red Bird  
Thank God—I'm still intact.

J. W. H.  
From the JAMA

# The Journal

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## South Carolina Medical Association

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## INJURIES OF THE CERVICAL SPINAL CORD AND THEIR MANAGEMENT

JOHN D. ASHMORE, JR., M. D.<sup>°</sup> AND LUTHER C. MARTIN, M. D.<sup>°°</sup>  
Charleston, S. C.

Nearly all of the injuries of the spinal column which are associated with cervical cord injury are produced by sudden, severe flexion or extension of the spine. The vertebrae may be dislocated or, more commonly, there may be a fracture-dislocation. In addition to the involvement of the vertebral body, there may be fracture of one or both articular processes with displacement of one vertebra upon the next. There may also be fractures of the laminae, spinous or transverse processes. An important fact emerges from the study of cervical cord injury in that there is no constant quantitative relationship between the extent of injury to the bones of the spinal column and the extent of the injury to the spinal cord.

In reviewing cases of severe trauma, one finds four different pathological factors acting alone or in various combinations. These factors are (1) laceration and crushing of nervous tissue at the time of original trauma; (2) hemorrhage into the cord; (3) edema of the cord; (4) continuing pressure upon the cord caused by residual bony deformity, ruptured intervertebral disc, or meningeal hemorrhage.

In the consideration of cervical cord injuries, one injury deserves special consideration because of pronounced differences in anatomy at this level of the vertebral column. This injury is the dislocation of the atlas or first cervical vertebra on the axis or second cervical vertebra.

The anatomy at this level is distinguished by the presence of the odontoid process, the transverse ligament, and the unusual degree of mobility at the articular facets. These are three types of injury most often associated with trauma at this level; (1) fracture through the base of the odontoid process without dislocation, (2) dislocation of the atlas on the axis with rupture of the transverse ligament but without fracture of the odontoid, (3) anterior or posterior dislocation of the atlas on the axis with fracture of the odontoid. This is the commonest type of dislocation.

The first essential step in the management of cervical cord injuries is their recognition. Any patient unconscious from a head injury should automatically be suspected of having a cervical spine injury. A spinal injury may be indicated by the posture of the patient, by pain, stiffness, tenderness, or deformity of the spine, and by weakness, paralysis, or sensory changes affecting the extremities or trunk. If the patient is conscious he usually complains either of (1) pain in the neck which may radiate into the shoulder or arms, or (2) either weakness or numbness or both in one or more extremities.

If injury of the cervical spine is suspected, the patient's head must not be lifted for any purpose. The patient should be moved with the greatest care. A minor injury may be greatly aggravated by improper movement. The doctor should supervise any movement and transportation of the patient if possible. The patient should not be lifted from the ground unless he is on a stretcher or some

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rigid support. Movement should not be attempted unless absolutely necessary. The optimum position is the supine, with a folded blanket or sheets beneath the shoulders and the neck in slight hyperextension. Folded blankets or sandbags should be placed at both sides of the head to prevent lateral movement. The patient should not lie prone. Three persons are needed to properly turn a patient with a fracture dislocation of his neck. One should grasp the chin and occiput and exert steady traction in the line of the long axis of the body. The second should grasp the ankles and exert equal counter-traction. The third should kneel beside the patient and gently rotate the patient toward himself while the traction is being exerted.

All patients with fracture-dislocation of the cervical spine should be transferred immediately to a hospital where definitive neurosurgical treatment can be given.

When the patient arrives at the hospital, the first diagnostic step is an evaluation of his general physical condition, especially the degree of surgical shock. If shock is present, its treatment should receive precedence over any other care. Shock is treated in the usual manner by the application of warm blankets, use of the "shock position," the administration of appropriate fluids, preferably blood, and perhaps stimulants. As soon as possible, a complete examination of the patient should be carried out. The vital signs should be recorded immediately and frequently thereafter. In performing the neurological examination, the sensory level may be marked directly on the skin of the patient, especially if the patient is to be transferred to another hospital. The degree of motor loss should be recorded in as much detail as possible.

Acute wounds of the chest, head, or abdomen should be treated before the spinal injury. However, care should be exercised during these treatments to prevent any distortion of the spine.

Stiffness of the neck with displacement of the head forward or with tilting or rotation to one side usually indicates fracture or fracture dislocation of one or more cervical vertebrae. The site of the injury can often be determined

by sliding the hand beneath the patient's neck without moving the head or neck, to find the point of maximum tenderness or faulty alignment of the cervical spine.

When the physical and neurological examinations have been completed, it is important to obtain good x-ray studies of the cervical spine. If possible, the patient should be attended personally by the responsible physician. One should not depend upon an x-ray technician to position the head and neck of a patient with possible cervical injury. In addition to the usual antero-posterior and lateral views of the cervical spine, special views to show the odontoid process are usually indicated. X-rays should include the entire cervical spine if possible. Downward traction on the arms while the film is being taken aids in the demonstration of the lower cervical vertebrae.

The next step in the evaluation of cervical spine injuries is usually a lumbar puncture. This test is of particular importance in determining the presence of a subarachnoid block. The Queckenstedt test is carried out in the usual manner. Light, brief bilateral jugular compression normally results in a quick rise of 10 mm. or more with rapid return to initial pressure. Firm bilateral jugular compression for 10 seconds results normally in a sharp rise of spinal fluid pressure with return to the original resting level within 20 seconds after release of compression.

After the above studies have been performed, the decision as to surgical treatment must be made. The decision as to whether a laminectomy should be done should be made as soon as possible. If surgical decompression is to be carried out, operation should be performed immediately. The decision to operate is usually made when there is a demonstrable block of the subarachnoid space by Queckenstedt test, if there is x-ray evidence of bony encroachment upon the spinal canal, or if there is evidence of progression in the cord signs. Recently the syndrome of acute anterior spinal cord compression has been added to the indications for laminectomy.<sup>1</sup> This syndrome consists of total motor loss below the level of the injury with loss of pain and temperature sensation, but with touch, position and vibra-

tory sensation intact. This syndrome is produced by compression of the anterior part of the spinal cord by an extruded disc or bone fragment. The attachment of the dentate ligaments causes the maximum stress to be applied to the lateral columns of the spinal cord.

There is a group of patients who have a questionable block and questionable x-ray evidence of encroachment upon the spinal canal, and it is unknown how much permanent neurological damage has been done. These cases test the judgment of the neurological surgeon. However, we feel that with these patients it is probably better to err on the side of a possibly unnecessary operation. It is impossible to tell by clinical examination alone that a completely irreparable lesion is present. Thus, patients should not be denied any opportunity for improvement from the relief of pressure of any type on the spinal cord.

Skeletal traction, usually in the form of Crutchfield tongs, is usually applied to the patient before and during laminectomy. In some cases in which there is no evidence of subarachnoid space block or bony encroachment, the use of this skeletal traction alone may be all that is indicated. This skeletal traction is certainly preferable to the halter type traction. The halters usually become extremely uncomfortable and interfere with the movement of the jaw in eating and talking. Furthermore, considerably less traction can be applied by the use of the halter. If the fracture dislocation is to be reduced by skeletal traction, enough weight should be applied to reduce the dislocation as soon as possible. We do not believe in the slow application of weight with reduction of the fracture over a period of several days. Usually 30 to 75 pounds of weight is applied and frequent x-rays of the cervical spine are taken until the dislocation is reduced. The amount of weight is then reduced to about 20 pounds. The patient is then maintained in traction for a period of about 6 weeks or until x-rays reveal callus formation.

In addition to the immediate treatment of the spinal lesion, the chief consideration in the treatment of a paralyzed patient is careful attention from the very beginning to the bladder

and bowel care, prevention of decubitus, maintenance of adequate fluid intake, and nourishment, early rehabilitation, and preservation of morale.

The bladder care is one of the most important problems in paraplegia. Overdistention should be avoided at all times as well as long continued contraction of the bladder. The patient should be catheterized within a few hours after his injury in order to prevent overdistention of the bladder. An indwelling urethral catheter is usually inserted. Tidal drainage of the bladder is the method of choice for bladder care. However, frequent irrigations of the bladder with antiseptic solutions may be used if tidal drainage is not available. The catheter should be changed at least every two weeks. An attempt should be made to establish an automatic bladder as soon as the period of spinal shock has disappeared and cystometrograms indicate a return of bladder tone. The return of bladder function may sometimes be speeded by the use of drugs such as Prostigmin, pilocarpin, or Trasentine. At times surgical methods are necessary for treatment of the atonic and hypertonic bladder, such as transurethral resection of the bladder neck or presacral neurectomy.

The immobilization of the patient often results in absorption of calcium from the skeleton. High serum calcium may result in the formation of stones in the urinary tract. The frequency of calculus formation is great enough to warrant x-ray examination of the abdomen (flat plates) at monthly intervals. Calculus should be suspected when fever recurs. The urine should be kept acid as a prophylaxis against calculi.

Care of the skin is another important item in the care of the paralyzed patient. To prevent the onset of decubitus ulcers it is necessary to change the position of the patient at least every two hours day and night, and to avoid wet, soiled, or crumpled sheets. Skin care is facilitated by the use of special air mattresses or the Stryker frame upon which the patient can be turned frequently. The skin should be kept dry with powder, and treated with frequent alcohol rubs and, if possible, daily applica-

tions of infra-red or ultraviolet light. Applications of tincture of benzoin at pressure areas help to protect the skin.

The better the general physical condition of the patient, the less likely he is to develop decubitus ulceration. These patients are thus given a high caloric, high protein and high vitamin diet. The hemoglobin and red count and blood protein level should be maintained at normal values. Supplementary feedings with protein preparations, the administration of plasma, iron, or frequent small transfusions help restore debilitated, anemic patients.

If decubitus develops, the area should be cleaned and ointment or antibiotics applied. Devitalized tissue should be removed and the ulcerated area should be closed when the wound is clean.

Respiratory complications are particularly frequent in cervical cord injuries, due to a lack of full expansion of the lungs when the intercostal muscles are paralyzed. Aids in the treatment of respiratory complications are intratracheal aspiration of mucous, tracheotomy if necessary, and fixation of the paralyzed abdominal muscles by a binder to improve the action of the diaphragm. CO<sub>2</sub> inhalations are sometimes of help in increasing the respiratory depth. Chemotherapy is always indicated in the presence of potential or actual pulmonary infection.

Abdominal distention secondary to paralytic ileus is a frequent complication of spinal injuries. This distention may be controlled by drugs such as Prostigmin, supplemented by enemas. An indwelling stomach tube with gastric suction may be necessary to relieve the distention.

Bowel training should be started as soon as possible and the patient should be given an enema at a regular time each day until automatic control is established. Fecal impaction should be watched for and treated as necessary. Fluid intake of at least 4,000 ml. per day is necessary to aid in proper excretion of urine and feces.

Psychic trauma is great in individuals with neurological damage. Thus, the morale of these paralyzed patients is of extreme importance. Each case requires individual consideration, but as a general rule several tenets of treatment may be set forth: never give false hope during the waiting period of 6 to 8 weeks while waiting for return of function. Narcotics are rarely indicated since pain is seldom a problem and addiction only augments the patient's handicap. Physical and occupational therapy are of vital importance, both from a physical standpoint and the improvement of the patient's sense of well being.

Rehabilitation should be started as early as possible. The muscles which are functioning should be exercised frequently. By developing these muscles the patient may better preserve his health and metabolism and may begin to walk more quickly with the aid of crutches and braces.

Hope of at least some recovery of function should not be given up for at least two years after injury. It has been said that the paralytic's biggest asset is always hope.

#### REFERENCE

1. Schneider, Richard C. The Syndrome of Acute Anterior Spinal Cord Injury. *J. Neurosurg.*, 1955, 12:95-122.



# WILLIAM STEWART HALSTED

BY EDWARD F. PARKER, M. D.\*

Charleston, S. C.

Dr. Halsted was Professor of Surgery in the Johns Hopkins University and Surgeon-in-Chief of the Johns Hopkins University Hospital from the date of its opening in 1889 until his death on September 7, 1922, lacking only sixteen days of reaching the age of seventy years.

His distinct published contributions included:

1. Blood refusion (transfusion) by centripetal arterial transfusion in carbonic oxide poisoning.
2. The effects of adduction and abduction on the length of the limb in fractures of the femur.
3. The employment of fine silk in preference to catgut and the advantages of transfixing tissues and vessels in controlling hemorrhage.
4. The introduction of rubber gloves, gutta-percha tissue, silver foil, mattress intestinal suture and the subcuticular stitch.
5. Special emphasis of the blood clot and the management of dead spaces in the treatment of wounds which had led to its more widespread use and appreciation.
6. The open air treatment of Surgical tuberculosis.
7. The introduction of conduction (so-called "block") anesthesia.
8. Circular and lateral intestinal anastomoses.
9. The bulkhead method of end-to-end intestinal suture.
10. The blind end circular suture of the large intestine, the closed ends abutted and the double diaphragm punctured with a knife past the rectum.
11. Original operations for the cure of inguinal hernia.
12. Original operations for cancer of the breast.
13. Original operation for goitre.
14. Original operation for aseptic intestinal anastomosis.
15. The partial, progressive and complete occlusion of the aorta and other large arteries by metal bands in the cure of aneurysm.
16. The relation of dilatation of the subclavian artery to the cervical rib.
17. The successful ligation of the left subclavian in its first portion for the cure of a huge subclavian aneurysm.
18. The transplantation of the parathyroids.
19. The retrojection of bile in the pancreas as a cause of acute hemorrhagic pancreatitis.
20. The omission of drainage in operations on the common duct.
21. A method of closure of the cystic duct after excision of the gall bladder.
22. The use of Thiersch skin grafts after radical breast amputation.
23. Replantation of entire limbs without vessel suture.

Naturally it should be of interest to inquire into the background of the man who was able to contribute so much to the science and practice of surgery. Dr. Halsted was graduated from Yale, where it was said that he showed no particular promise at the time. On entering medical school he worked laboriously in anatomy. Later he became assistant to Professor Dalton, the most stimulating and scientific teacher in the College of Physicians and Surgeons at that time. He was graduated from the College of Physicians and Surgeons in 1877 with the highest scholastic honor.

He obtained the highly prized position as intern at the Bellevue Hospital and served in that capacity for about 18 months. Then he studied and travelled abroad, especially at Vienna, Wurzburg, and Leipzig, which were the chief centers of the great German universities at the time. There he met the famous men of the day, including Billroth. And there in addition to his studies in surgery, he also devoted much of his time to studies in embryology, histology, anatomy and pathology. Unquestionably these two years abroad were very stimulating and broadening.

\* Address delivered at the Founders' Day Banquet, Alpha Kappa Kappa Fraternity, Charleston, S. C., 4 March, 1955.

He returned to New York in 1880 and remained there for five years, during which time he limited his practice to surgery. It is said that he was the first to do so in New York. One of his outstanding accomplishments during the New York period of his career was the establishment of an out-patient clinic at the Roosevelt Hospital, which type of clinic has persisted to this day.

In 1885 his health became very poor and he was inactive for a time until he moved to Baltimore to work in the laboratory of Dr. William H. Welch. There he remained until the opening of the Johns Hopkins Hospital in 1889, at which time the scope of his activities increased tremendously.

Let us review very briefly the history of surgery up to that period. In the days of Galen and Celsus, limbs of conscious men were amputated with an axe or guillotine. In much later days, a Lisfrank, a Dieffenbach, a Lizar or a Liston could disarticulate a hip in 5 minutes or less, provided one of the assistants was not injured during the process by the lightning maneuvers of the operator. There was a time when one could say of a master what was said of Fergusson, who in lithotomy proceeded with such lightning speed and skill that someone advised a prospective visitor to his clinic to "look out sharp, for if you only wink, you will miss the operation altogether."

At the beginning of Dr. Halsted's career, the fundamental principles of surgery having to do with the prevention of infection, the control of hemorrhage, with the handling of tissues, with drainage and with wound healing, were just beginning to be appreciated in a scheme of surgical procedure. Local and regional anesthesia were unknown. The cranial and thoracic cavities had been approached only in experimental entries, and neurological surgery and thoracic surgery as we know them today had not been developed. Surgery of the thyroid was just beginning. There was no successful operation for cancer of the breast and no successful treatment for hernia. A gastric resection had not yet been done. Intestinal resection with suture could scarcely be contemplated. In this country, surgery of the gall bladder and biliary tract was almost never

considered. One might go on citing the limitations of surgery at that time.

Later, with anesthesia and asepsis as the master keys, experimental surgery received a new impetus and the horizon of surgery expanded rapidly. Roentgen's discovery of the x-rays then came in 1895-96 to inaugurate a new epoch in surgery, and by illuminating the body, incredibly multiplied the indications for surgical intervention. The Roentgen rays and the collaboration of the physiological, biochemical, bacteriological and pathological laboratories all combined to transform the entire face of surgery so that it became no longer recognizable in the light of its ancient portraitures.

What parts did Dr. Halsted play in these dramatic and sensational changes in the practice of surgery?

It was in the field of anesthesia that Dr. Halsted made one of his greatest contributions to surgery, if not his greatest. In 1898 and 1899 he was the discoverer of so-called "Conduction Anesthesia," of the German writers, better known to us as "nerve-blocking." This he discovered through his own initiative and through personal experiments upon himself. The discovery was promptly utilized in dental and oral practice. He formulated a general law which was to the effect that the infiltration of a sensory nerve tract or path with an analgesic was equal to anesthesia of its peripheral distribution. This in essence is still the very foundation of all the present and most useful methods of regional anesthesia. It is interesting to relate as told by Harvey Cushing that 15 years later when he, Cushing, rediscovered the principles of nerve-blocking and applied it successfully in operations on hernia, publishing his well-known paper upon the subject, he was utterly unaware that his chief had ever made studies of any sort on cocaine, so reticent was Dr. Halsted about this matter and so little did questions of priority interest him.

Among Halsted's early experiences, he performed successfully under regional anesthesia, an operation in which he freed the cords and nerves of the brachial plexus by blocking its roots in the neck with cocaine solution. It is interesting that this operation was performed

in a large tent which he had built and furnished at his own expense on the grounds of Bellevue Hospital, having found it impossible to carry out antiseptic precautions in the general amphitheater of Bellevue where, he said, "numerous antagonistic, anti-Listerian surgeons dominated and predominated."

Halsted was also extremely interested in general anesthesia and actually was one of the first to discover independently that gas and oxygen was a satisfactory anesthetic mixture under some circumstances. He also discovered independently a method of intra-tracheal ventilation and its application to intra-thoracic operations for purposes of artificial respiration and anesthesia. He was anticipated in the publication of these by the work of Meltzer and Auer.

Halsted was extremely modest, shy and retiring. Another illustration of his indifference to claims of priority occurred in 1922, when in the course of a discussion at the American Surgical Association of a paper by Dr. Edward Klapp of Philadelphia on "Refusion or Reinfusion of Blood in Hemorrhage," it came to light that Dr. Halsted had frequently practiced the procedure 31 years previously and had saved a number of lives by its application while acting as Surgeon at the old Chambers Street Hospital in New York. Credit had been given Johann Thiess of Leipzig as the originator of this method of reinfusion or autotransfusion. This surgeon had published his experience in 1914 when he had applied it for the relief of patients exsanguinated through extra-uterine pregnancy but Dr. Halsted had clearly antedated him by at least 31 years as anyone could see by consulting the files of the *Annals of Surgery* in 1884 and the *Proceedings of the New York Surgical Society* in 1883, in which he described his experiences and clinical applications of the principles of blood "refusion," as he termed it, in the treatment of illuminating gas poison. After copious blood-letting, the blood of the patient was collected, defibrinated and thereby sufficiently aerated to deprive it of its toxic properties. It was then filtered and reinfused into the radial artery of the same patient, thus administering an arterial contripetal infusion. The results obtained by this pro-

cedure were remarkable. Patients who were comatose would after bleeding promptly become conscious and even quite rational and upon the reinfusion of the defibrinated and detoxicated blood they would recover still further. The technique of refusion in hemorrhage as practiced at the present time is different in some respects but remains essentially the same in principle as that first applied by Halsted in the 1880's.

Possibly his next greatest contribution to surgery was in the field of aseptic technique. It was he who introduced the use of the rubber glove in 1890. The rubber gloves were used first by the operating nurse to protect her hands and forearms from the strong chemicals in which the instruments were disinfected. It is of interest that the then operating room nurse became the future Mrs. Halsted. Next it developed that the members of the operating team except the operator, wore gloves. The gloves were not worn by the operator because it was considered that their use would interfere with the tactile sense. It was not until Dr. James C. Bloodgood became the Resident Surgeon that the operator himself used rubber gloves, Dr. Bloodgood having served on the Resident Staff sufficiently long to have become accustomed to their use.

Probably the next greatest contribution of Halsted was in other phases of surgical technique. Halsted believed that the surgical approach to disease had two important branches: one had to do with fundamental principles of surgery, those concepts and techniques which must be understood and practiced if any surgical operation, no matter where performed upon the body, were to be successful; the other to do with specific surgical diseases. As a young surgeon, Dr. Halsted appreciated that surgery could not advance greatly until the fundamental principles were clarified, for his first important work lay in this field. His experiments showed that normal uninjured tissues have a very definite natural resistance to infection but when tissues are crushed, have their blood supply impaired or are otherwise traumatized, they lose their resistance to infection. The problem then was to conduct an operation with a minimum of injury to the

tissues in the operative field. He devised a clamp with a sharp point, known as the Halsted artery forceps, the purpose of which was to stop bleeding without crushing more than a minimum of tissue. He used the finest silk to tie the bleeding vessels, for silk can be completely sterilized by boiling and causes less inflammatory action in the tissues than catgut. He was wont to transfix the bleeding point so that the ligature might be drawn just tight enough to stop bleeding without unnecessarily strangulating tissue and yet without the danger of the ligature slipping off. He stopped all bleeding in a wound so that no blood could collect in tissue spaces. He did not pull or tear or otherwise roughly treat the tissues. He closed a wound by approximation of the tissues layer by layer with the finest silk sutures applied without tension in order not to impede their blood supply and thus retard healing. He devised a subcutaneous suture which approximated skin without involving the outer layers which harbor pathogenic organisms. Since he appreciated so clearly the sources of wound infection, he was opposed to the drainage of clean wounds, not only because drainage was a confession of careless surgery, but because infection may be introduced along the drain. But if drainage was necessary, or if the wound required packing, or if an open wound needed frequent dressing, he recognized that injury to delicate granulation tissue, the essential tissue in healing, should be avoided and for this purpose devised a filmlike guttapercha tissue which does not adhere to wound surfaces. It should be noted these refinements in surgical technique were not haphazard in origin; they were based upon a scientific approach to the problem by the experimental method, and had a profound effect upon surgery. The methods implied in the term "Halsted technique" spread and have been adopted by clinic after clinic until today they are recognized as the best and the safest techniques in surgery. To them must be attributed in no little measure the striking reduction in mortality in present-day operations.

The problems connected with the surgery of the thyroid gland also engaged his early interest, which was maintained throughout many

years. At the time there were two chief forms of thyroid disease, the large colloid goitre and the exophthalmic goitre. Both conditions not infrequently caused death. They were a constant challenge, particularly to surgeons. But the blood vessels in these conditions were so enlarged and numerous that fatal hemorrhage was a real complication, so much so that eminent surgeons of the day declared that operations upon the thyroid were not justified. Dr. Halsted's studies led him among other things to devise and describe with admirable illustrations by Broedel an operation upon the thyroid gland, not only from the viewpoint of avoiding hemorrhage but of protecting the patient against removal of or injury to the parathyroid glands.

The story of the development of the surgical treatment of cancer of the breast is a long and interesting one with many contributors. Halsted revolutionized the surgical treatment of cancer of the breast around the turn of the century. He showed then by the thoroughness of his methods that the older technique of the operation could be so greatly improved that the percentage of local recurrences—which had up to that time ranged between 59% (Volkman) and 85% (Billroth)—had dropped in his hands to the low figure of 6%, and if the regional recurrences away from the field of operation were included, the combined total of local and regional recurrence after three years observation did not exceed 22%. His operations on the breast for cancer established a standard of efficiency which had no precedent in the history of malignant disease. He showed that by operation the disease could be positively eradicated from its original focus of invasion and that even when it had advanced to what were usually regarded as impregnable intrenchments, the apex of the arm-pit and the neck, there was still hope of cure if the operation was performed as thoroughly as Dr. Halsted did it. Prior to the days of Dr. Halsted, an "amputation" of the breast was performed for cancer which consisted of a mastectomy performed in 15 or 20 minutes or less with a few rapid and sweeping strokes of the knife. Quite often the disease recurred in the wound before it had time to heal. Some surgeons of the

greatest experience such as Agnew frankly admitted that they had never been able to cure a cancer of the breast by operation or any other means.

Dr. Halsted's success in the ligation of the great and most dangerous arteries, the aorta, the innominate, subclavian, carotid and iliac, was outstanding. His ingenious device for the partial and progressive occlusion of the aorta and other great vessels in the cure of aneurysms was a great innovation.

He was the first surgeon to ligate the left subclavian in its first division successfully (1892). He again performed the same ligation in the thorax successfully on April 26, 1918, (in this case for a huge subclavian aneurysm). He also ligated simultaneously the left carotid, ligating both vessels near their aortic origin. This is probably the largest subclavian aneurysm ever operated upon. Two years after ligation he excised the sac, which had remained and was beginning to relapse, also with complete success. He ligated the subclavian in all 6 times for aneurysm, including two ligations of the first division of the left subclavian, followed in both instances by a secondary extirpation of the sac. The patients all recovered ideally without gangrene or added loss of function. The wounds all closed without drain, healed per primum, and in all the aneurysms were cured. He also ligated the innominate 5 times, all the patients recovering. He was the first to occlude successfully the thoracic aorta for high abdominal aneurysm with a partially occluding aluminum band, December 18th, 1905.

As for the rest, the same interest, originality and practical value was displayed in the techniques which he evolved for skin grafting, for the suture of wounds, for the radical care of hernia, for the resection and suture of the intestines, for the drainage and suture of the common bile duct at a time when most men were limiting their interventions to the gall bladder and the cystic duct.

His pupils included Cushing, Heuer and Dandy, to whom in succession he entrusted and virtually relegated the development and teaching of neurologic surgery in Hopkins. In this regard, Dr. Dandy was the first to use

pneumoventriculography. His idea for this was due largely to the frequent comment by Dr. Halsted on the remarkable power of intestinal gases to perforate the bone, so that Dr. Dandy's attention was drawn to the practical possibility of its use as a contrast medium in the brain.

Halsted wished above all to establish a school of surgery which would eventually disseminate throughout the surgical world those principles and attributes which he considered sound and proper. His aim was to teach teachers, not merely competent operating surgeons. He therefore selected carefully as members of his resident staff men whom he considered unusually gifted and promising and who upon completion of their own training would be eager to go out and teach. It is tremendously interesting that from among the 238 residents and assistant residents under his direct training and residents trained by his residents, there became 37 professors of surgery, 14 clinical professors, 18 associate professors of surgery, 14 clinical associate professors, 17 assistant professors of surgery, 16 clinical assistant professors of surgery and 23 instructors in surgery.

According to René Leriche, a surgeon of Lyons, Halsted was the father of a school of surgery which may be described as the surgery of safety, of a technique which sacrificed everything to the immediate and future success of the operation and the welfare of the patient. He put in force the most rigorous asepsis and the most uncompromising discipline in guarding the tissues from insult by neglecting no details, no matter how small, that might compromise the issue and the thoroughness and finish with which he carried out the operative act. Beginning at a time when surgery was still living under the spell of the pre-anesthetic days, when rapidity of execution was given the highest premium, he stood firm upon the ground that the nature of the material upon which the surgeon exercised his handicraft is too noble and precious to be wasted. To do this effectively the surgeon must subordinate brilliancy and rapidity to safety. As an investigator, Halsted understood surgery as an experimental science, aiming at

his objective at the greater and deeper knowledge of the laws that govern physiological and pathological life.

Dr. Rudolph Matas, famous surgeon of New Orleans, in his memorial address on Dr. Halsted following his death, described him as

"Bold in those things that were safe or that he could safeguard by his own judgment and experience; fearful in those that were dangerous; avoiding all evil methods and practices; tender to the sick; honorable to the men of his profession; truthful, wise in his predictions, chaste, sober, pitiful, merciful, not covetous nor extortionate."

Dr. Halsted's gentleness, his great concern for suffering, his minute precautions against the unnecessary spilling or waste of blood, his watchfulness and anxiety about the fate of his

patients afford one of the most touching and beautiful examples of the humanity and the humane qualities of the real surgeon.

Anyone who has attentively followed the progress of surgery would find it unnecessary to consult the Index Medicus for the information that his personal labors and example have left an indelible impression upon the history of surgery, not only in America but everywhere the language of surgery is spoken and taught.

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*Care of Traumatic Wounds of the Extremities.* Karl M. Lippert, M. D. Tri-State Med. Jour. 4:14-17, Mar. 1956.

Every severe wound deserves a maximum of surgical care. This care can only be given to proper extent in an adequately equipped hospital. An ordinary wound, within 6 hours can be treated under usual circumstances like a clean wound if proper local cleansing is done at the time of treatment. Delaying the treatment of a wound results in a "contaminated" wound which must then be treated as though infected and systemic therapy added to the local treatment. All wounds should have adequate debridement of the traumatized tissues with removal of devitalized skin, fat, fascia, and bone, as indicated. Closure should be of the skin only in clean wounds with no closure at all attempted in contaminated wounds. It is better that the contaminated wound be treated by the delayed or secondary closure after 7 to 10 days of local toilet to the wound.

Early suture of clean lacerations of tendons can be accomplished as a primary procedure when adequate exposure and a dry field is obtained, using fine silk sutures for the anastomosis. In case of dirty wounds,

no tendon suture should be attempted at the primary treatment. After all infection has cleared and a healed wound is present the tendons can be considered for suture. A form of Bunnell suture technique should be employed with very fine silk or Number 34 or 35 surgical steel wire as suture material. Joint capsules when opened in injury should be cleansed and closed loosely without drainage. All traumatic wounds should be treated without drains or in-lying sutures to be tied at a later date. Drains and non-absorbable sutures left in a wound act as a foreign body. Treatment of fractured bones should follow that commonly characterized for the treatment of compound fractures, paying the same attention to the care of the soft tissue as outlined in the original paper. Use of antibiotics has no place in the local treatment of recent injury. They often cause more damage to tissue than the bacteria which contaminates tissue. Systemic use of antibiotics in adequate doses in all severe, contaminated wounds is advised by the parenteral route followed or supplemented with oral antibiotics until the wound is satisfactorily returned to normal condition. With proper surgical care to all traumatic wounds at the time of injury, life and limb will be spared to a great extent.



# HOSPITAL DEATHS INCIDENT TO MAJOR SURGICAL OPERATIONS ON THE AGED

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The purpose of this paper is first, to call attention to the marked increase in the mortality rate in patients 75 years old and older who undergo major surgical procedures over that of those under age 75; second, to show that the reasonably low overall mortality of 6% to 8% depends upon the favorable results obtained in the 65 to 75 age group as well as the few deaths associated with herniorrhaphy, perineal and pelvic procedures and operations on the breast, and again to emphasize the dictum that elective major surgery should be undertaken on the elderly only after critical evaluation of the individual and satisfactory evidence that the anticipated benefits will justify the risk.

This communication is based upon an analysis of the mortality following 755 major operations performed in Lakewood City Hospital by members of the surgical staff during the five year period beginning with January 1948 and ending on the last of December 1952, on patients 65 years of age and older. (All were white).

Elderly patients are assuming an increasingly important role in surgery. They are not only actually more numerous, but percentage-wise are increasing faster than the general population of the United States.<sup>1</sup> Today, those 65 and over number 14,100,000 representing 8.6% of our total population while in 1900 there were 3.1 million or 4.1% of the population, which means that more and more of them will become candidates for major surgery. Again our present days knowledge of electrolytes, transfusions, blood chemistry, anesthesia and the introduction of the sulfa drugs and antibiotics enables us to suggest elective surgical therapy more freely than in the days when a herniorrhaphy, for example, was generally frowned

upon if the individual was over 65. The factor of safety is greater. All types of surgery are safer than they were twenty years ago, but as will be shown, the mortality rate in the old is an especially important factor to consider when we recommend a major operation to an elderly patient.

During the years of 1948 through 1952 the Lakewood City Hospital mortality following 755 major operations on patients aged 65 and up was 6.7%. Contrary to the implication of the words "City Hospital" this institution receives very few ward patients. Almost 95% are private patients, financially able to buy good food and thus nutritional problems are far fewer than those of a metropolitan hospital located in or near a slum area. This factor has a bearing on the mortality.

The staff is a so-called "open staff" and any qualified doctor practicing in Greater Cleveland is eligible for staff membership. The surgeons, with a few exceptions, are diplomates of the American Board of Surgery, members of the American College of Surgeons or both. All anesthetics are administered by doctors trained in this field and the department is directed by a Board certified anesthetist. The clinical laboratory is supervised by a full time pathologist.

Preoperative and postoperative care is that carried out in today's well equipped hospitals. Early ambulation is the rule and gastric intubation is a common practice. As elsewhere the therapy both before and after operations is so superior to that of the recent past, that even without the use of antibiotics and the sulfas the mortality and morbidity of surgery would be measurably reduced.

The statistics tabulated show several important findings, at least at Lakewood Hos-

pital. The mortality rate in both men and women 75 years of age and over is much higher than in those under 75, with a discouragingly high mortality in males of 80 and over. The one-third fewer deaths among women, than in men may be attributed to the greater vitality of the sex, for they not only withstood identical procedures better than the men, but in this series, recovered from 83 perineal and pelvic operations and 51 breast operations without one fatality. This will be shown in more detail in the consideration of some of the several categories.

The condensed tabulation of the Lakewood City Hospital series is as follows:

MALES			
Operations		Deaths	
65-69	180	14	7.2%
70-74	110	5	4.5%
75-79	86	10	11.7%
80 plus	35	11	31.4%
Oldest 91 (Died)			
FEMALES			
Operations		Deaths	
65-69	167	1	5.6%
70-74	110	3	2.7%
75-79	39	3	7.7%
80 plus	28	4	14.3%
Oldest 90 (Recovered)			
411 Men—	40 Deaths—	9.9%	Mortality
344 Women—	11 Deaths—	3.2%	Mortality
OVERALL MORTALITY—6.7%			

The summaries of two other papers which tabulated mortality rates in patients of 60 years and up are of interest because one series lists concurrent diseases and confirms the marked increase in deaths in those of 70 years and over, while the other notes a 6% incidence of wound dehiscence.

354 Major operations in 311 patients 60 and over. <sup>2</sup>			
9% Operative mortality		10.2% per patient	
Emergency cases		22% mortality	
Elective cases		5.7% mortality	
Wound Dehiscence 6%—2% in transverse incisions			
Hospital mortality all cases major surgery		3%	
Hospital mortality age 60 and over		9.6%	
Age	Class	Deaths	
60-64	195	12	6.5%
65-69	146	8	5.4%
70-79	118	19	16%
80-89	37	8	22%
240—Free from other disease			
256—With associated disease			
49—Arteriosclerotics including kidney, myocardium and coronary—180 Hypertensives—22 Diabetics <sup>3</sup>			

A brief review of some of the surgical procedures is of interest and gives some enlightening information.

A preoperative diagnosis of acute appendicitis was made in 15 men and 15 women. Three men and one woman died. Post-operative diagnosis failed to confirm the preoperative diagnosis in seven instances, and supports the well known fact that acute appendicitis in the aged is often difficult to recognize. Early and accurate diagnosis should lead to more favorable results.

Errors	
1—Carcinoma of the cecum (resected)	Died
5—Enteritis	All Recovered
1—Coronary thrombosis—proven at autopsy	

Operations on the breast are summarized because they were without mortality, and because 15 out of 45 malignant growths were treated by simple mastectomy. Of passing interest is the proportion of malignant to benign tumors:

	Malignant	Benign	Radical Mastectomy Surgery	Only
65-69	22	1	16	7
70-74	15	3	8	10
75-79	7	2	5	4
80 plus	1	1	0	2
	45	7	29	23

Operations on the gall bladder and common duct were performed three times more often on women than men, a slightly higher ratio than the commonly quoted proportion of 4 to 1, which in this small series, limited to those of advanced age, may be of no significance. However, the markedly higher mortality among the men is of importance and we must be very sure of our ground before recommending surgery when the condition neither threatens life nor causes intolerable symptoms. We should evaluate carefully the severity of the disease, the operative risk and the life expectancy, and ask ourselves whether the patient might better be allowed to suffer a tolerable amount of discomfort, rather than to be submitted to operation. What may be sound advice for younger patients with many years ahead of them may not be proper counsel for the groups we are discussing. We can be guided only by conclusions arrived at after

thoughtful deliberation. The decision for or against surgery is difficult.

The gall bladder was removed in all except two:

Gall Bladder				
Cases	Women		Mortality	
	Acute	Chronic		
65-69	23	19	0	
70-74	20	15	2	
75-79	9	7	1	
80 plus	2	2	0	
	54	43	3	
			5.5% Mortality	
Men				
65-69	7	5	1	
70-74	7	4	1	
75-79	4	3	1	
80 plus	None	—	—	
	18	12	3	
			16.6% Mortality	

Combined Mortality—8.3%

The death rate, so much greater than in the middle aged and younger, emphasizes the necessity for being cautious when we elect to operate on those who are 65 or older.

The minimum risk of herniorraphy helps to keep the overall mortality in the aged at the 6 to 8 percent rate.

Males			
Inguinal Hernias			
Age	Patients	Unilateral Repair	Bilateral Repair
65-69	30	25	5
70-74	23	20	3
75-79	8	6	2
80 plus	2	2	0
	63	53	10
No deaths			

Six were operated on for femoral hernia.

Five were operated on for incisional hernia and one for umbilical hernia.

All recovered.

Only 21 herniorraphies were done on women, one of whom failed to survive the resection of a gangrenous loop of bowel.

A small number of benign lesions of the stomach indicate that gastro-enterostomy still has its place in the treatment of pyloric obstruction. Ten of the thirty-one patients withstood gastro-enterostomy without a fatality, while of 21 subjected to gastrectomy four died, which results should make us consider care-

fully the procedure to be employed. Gastro-enterostomy gives excellent results in older patients. They do not get marginal ulcer, and their stomachs empty in a satisfactory manner, therefore, if we can assure ourselves that the lesion is non-malignant a posterior gastro-enterostomy is the operation of choice for patients in the upper age brackets. They may be expected to live out their remaining years in comfort.

Carcinoma of the stomach was encountered in 15 men and 4 women in only 7 of whom was definitive treatment regarded as worthwhile. The others were too advanced to offer a prospect of cure, and in 6 a palative gastro-enterostomy was done while the remainder were explored and closed. There were 4 deaths. Only earlier diagnosis will bring somewhat better results. At best, the picture is a grim one.

Operations for malignant conditions of the large intestine carry a high mortality. Eight out of 41 died following a resection done in the hope of cure, while palliative procedures in 13 resulted in 3 deaths. Let us hope that this 20% mortality can be reduced. The risk is justified since without surgery death is inevitable. The anticipated benefits warrant operation.

Eighty three major operations on the pelvis and perineum were done without a fatality.	
Anterior and posterior colporrhaphy	34
Anterior and posterior colporrhaphy with hysterectomy	21
LeFort operations	8
Watkins transposition	5
Abdominal hysterectomy	10
Abdominal supracervical	2
Uterine suspensions	2
Ovarian cyst	1

None of the women was over 75, and we marvel at their ability to withstand these severe procedures.

The statistical study of prostatic surgery merits attention:

Age	Cases	Transurethral Resection	Supra-pubic	Mortality
65-69	74	43	27	2
		1 Perineal	1 Retropubic	
70-74	59	35	24	2
75-79	33	25	8	1
80 plus	45	26	19	6
	211	131	78	11
Mortality 65-69	3%	—	Mortality 80 plus	13.3%
Mortality Overall	5.2%			

A tabulation of deaths following operative procedures on the prostate is given because it shows clearly the increased hazard met with in those over 75 years of age.

Age	Growth	Procedure
66	Benign	Transurethral Resection
67	Benign	Suprapubic
74	Carcinoma	Suprapubic
74	Carcinoma	Suprapubic
78	Benign	Transurethral Resection
81	Benign	Suprapubic
84	Benign	Transurethral Resection
84	Benign	Transurethral Resection
84	Benign	Suprapubic
87	Benign	Transurethral Resection
91	Carcinoma	Fulguration
	Palliative	

Even though we exclude the 91 year old man on whom palliative fulguration was used, we find that half of the deaths in a series of 211 occurred in 72 patients all of whom were in the two upper brackets. Further, it will be noted that the mortality of suprapubic prostatectomy is 7.5%, approximately double that of transurethral resection, and the urologist should have very substantial reasons for electing the suprapubic approach.

Malignancy is found so frequently associated with enlargement of the prostate that a summary of its incidence demands inclusion in this paper.

Pre-Op. Diagnosis			Post-Op. Diagnosis	
Age	Benign	Malignant Change	Benign	Malignant Change
65-69	60	14	56	18
70-74	55	4	52	7
75-79	28	5	23	10
80 plus	44	1	42	3
	187	24	173	38
				or 18.4%

It will be noted that carcinoma was found present in 14 prostates in which the pre-operative diagnosis was benign hypertrophy, and that even in the younger group carcinoma of the prostate is found in one-third of those who undergo operation. No explanation is offered as to why in the 70-74 aged patients in only 7 out of 59 was malignancy found. Likewise, the men over 80 had a relatively small number of carcinomatous glands.

A detailed discussion of the miscellaneous

surgical procedures may be properly omitted. These include 7 thyroidectomies, 8 lumbar sympathectomies and one or two each for some 25 serious conditions such as carcinoma of the larynx, two for rupture-diverticular of the sigmoid. The patients having thyroidectomies and sympathectomies all recovered, while out of 25 operated on for miscellaneous conditions two died. No conclusions can be drawn and an attempt to do so would be inappropriate.

Orthopedic operations and their outcome have not been studied. Probably their inclusion would have little bearing on the general conclusions to be drawn from the results tabulated.

In summary, an emphasis of a few facts brought out in the analysis of the mortality in patients from 65 years of age to over 80 submitted to major operations is worthwhile.

Procedures involving the breast, hernia, and perineum and pelvis may be advised with considerable confidence. These are well tolerated.

Major surgery on patients 75 and upward, should only be undertaken when the condition either threatens life itself or is associated with intolerable discomfort.

The probable life expectancy of the individual is another factor to be considered when we decide for or against an elective operation on the aged. An operation which is fully justified in the middle-aged, may not be warranted in the elderly.

We may expect the aged to make up an increasing percentage of our hospital population and their surgical problems will play a more and more important role than in the past. Surgical conditions threatening life allow us little choice. We must do what we can. The elective call for a decision based on thoughtful evaluation.

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# ELECTROCARDIOGRAM OF THE MONTH\* — T WAVES

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*Case Record*—Two medical students having no history or findings suggestive of heart disease served as subjects for the following experiment. An electrocardiogram was recorded on each one according to conventional procedure with the subject lying quietly in the supine position. He was then asked to drink one glass of ice water and the tracing was repeated within a few minutes thereafter under exactly the same circumstances. Both subjects showed almost identical electrocardiographic changes following the administration of the ice water. Tracings recorded before and after from one of the subjects, a 23 year old male, are reproduced below.

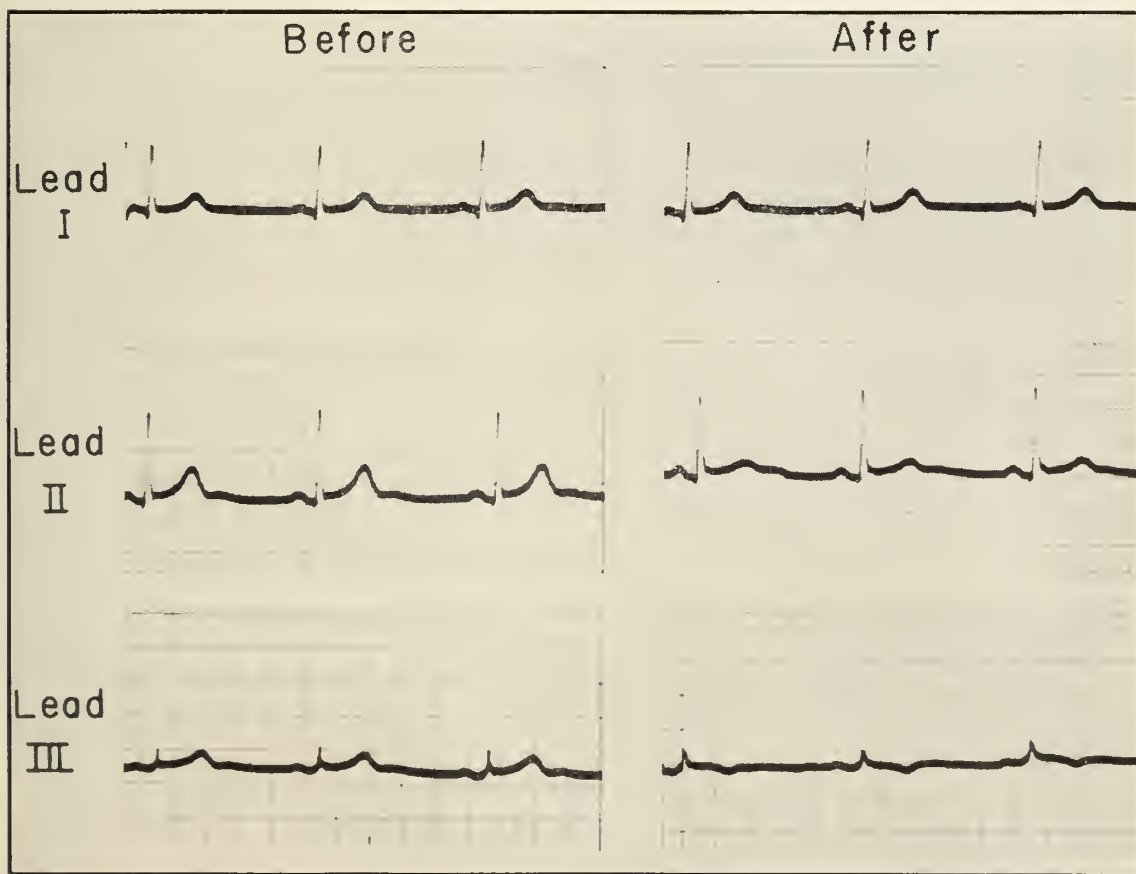
*Electrocardiogram*—The control tracing on the left is within normal limits. There is slight elevation of the ST segments in leads 2 and 3 but this is less than 1 mm. and is not ordinarily reported. Small U waves can be seen in leads 2 and 3, of no known significance. All T waves are upright.

After administration of ice water the T waves change remarkably, becoming of much lower amplitude in lead 2 and completely inverting in lead 3. QRS complexes remain the same throughout; it is the T wave deflections which are selectively affected by the ice water, most markedly so in lead 3.

*Discussion*—Many factors besides myocardial disease influence the size, shape and direction of T waves. Since a T wave results from the process of repolarization of the ventricular muscle, and since this repolarization wave normally proceeds across the muscle in opposite direction to the preceding depolariza-

\*One of a series of clinical-electrocardiographic correlations. Purpose of this series is the presentation, not of necessarily rare or unusual ECGs, but of those which illustrate basic electrocardiographic principles or which contribute prominently to the clinic diagnosis.

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tion wave but is also of opposite polarity to the depolarization wave, the T wave deflection is normally in the same direction as the main component of the QRS deflection. Alterations in the T wave are readily produced by anything which alters the anatomic position of the heart, such as deep inspiration, distention of the stomach, or going from the supine to erect position. However, all these are associated with some shift in axis of the QRS complexes also, and this does not occur in these tracings.

Something therefore has caused at least a portion of the ventricular wall to repolarize in a different direction. Electrolyte imbalances, smoking, anoxia, acidosis, drugs such as digitalis, or any toxic reaction as from a systemic infection are all capable of producing T wave changes which are not unlike those produced by myocardial disease. Likewise endocrine disturbances, fever, increased pressure within the ventricles, or any factor which appreciably

alters the physicochemical status of the muscle may alter the T wave. Such variations in T waves must be looked upon as non-specific. Obviously, those which persist, or those which progress through a recognizable pattern of evolutionary changes in sequential electrocardiograms are more indicative of actual cardiac disease. *As a general rule, any diagnosis of coronary or myocardial disease based on T wave abnormalities alone is a far more precarious diagnosis than one based on abnormalities in the QRS complex.* Both, of course, should be correlated with the overall clinical findings.

Perhaps the most likely explanation of the transient alterations in T waves pictured here is that of an actual cooling of the posterior or diaphragmatic surface of the heart since it is known that repolarization is influenced by temperature changes.

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*Practical Considerations Regarding Tracheotomy: Surgical Errors and Safeguards*, by Nicholas Georgiade, Carter Maguire, Hugh Crawford and Kenneth Pickrell. (J.A.M.A. 160:940-942, Mar. 17, 1956)

Except in instances of unpredictable trauma, tracheotomy should be anticipated and performed electively in the operating room under aseptic conditions and with proper assistance. This includes burns, neck surgery in the newborn and all radical cancer surgery of the head and neck which requires removal of a portion of the mandible.

In performing an elective tracheotomy, the patient's head is hyperextended and a transverse incision is made approximately two finger-breadths above the sternal notch. The strap muscles are retracted laterally and the thyroid isthmus is identified in the superior aspect of the wound. The trachea is freed anteriorly of all fascia and firmly grasped with a tracheal hook on each side at the level of the fourth tracheal ring. A vertical incision is made in the trachea at this level and converted to a "T" shape by making a small transverse incision superiorly. The tracheotomy tube can easily be slipped into place since the opening in the trachea spreads due to the traction of the hooks. We usually use a No. 5 tube but the size of the tube must be related to the size and needs of the patient.

Complications of tracheotomy include hemorrhage, subcutaneous emphysema, laryngeal stenosis, laceration of the anterior esophageal wall and encrustation of the trachea. Postoperatively, it is imperative that the patient be placed in a room with increased humidity and that infants be placed in a Croupette or Isolette.

The paper is illustrated with both photographs and illustrations.

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*Tonometry and The Cornea* by J. W. Jerve, Jr., M. D.

*Transactions of the American Ophthalmological Society, 1955*

Disturbance usually seen in corneal epithelium following tonometry is the result of trauma from the instrument added to the effects of local anesthesia. It varies in amount directly with age of the patient, duration of application of the tonometer, and weight of the plunger assembly.

Physical characteristics of the tonometer help to determine the amount and character of the disturbance.

The cornea can, to a measurable extent, be protected from tonometric trauma by instilling a drop of 1 percent methyl cellulose just before the instrument is used.



## THE IMPORTANCE OF PERIODIC CANCER DETECTION EXAMINATIONS

H. LEROY BROCKMAN, M. D.

Spartanburg, S. C.

Each spring, the American Cancer Society begins a cancer detection crusade. This year the theme of the crusade will emphasize the importance of periodic cancer detection examinations by private physicians. I would like to add my hearty endorsement to such a campaign and to discuss some of the benefits to be derived by the physician and his patients.

The individual physician occupies a key position in the present-day fight against cancer. His rapport with his patients places him in a unique position to obtain an early diagnosis and to institute prompt curative treatment. Such a relationship does not exist usually between an impersonal organization and the general public.

There are many advantages to the physician as well as to the patient in a program of periodic cancer detection. The physician in so doing is discharging a well recognized duty to his patients in disease prevention. Furthermore, education of the public to the dangers of cancer has produced a fear of cancer among many people. This is a healthy condition if it induces them to watch for the signs of early cancer and participate in a program of cancer detection. A negative examination by the family physician not only allows him to keep in contact with many patients he would not ordinarily have an opportunity to see, but also to obtain grateful patients relieved of cancer-dread. This is true, also, of patients who are found to have cancer early, and who are cured of their disease. A number of other ailments requiring treatment may be found during a cancer detection examination.

The cancer detection examination should include a complete history and physical examination, urinalysis, complete blood count, and routine chest x-ray. More complete laboratory or x-ray examinations are done if indicated. The history should include a review of the previous illnesses of the patient and careful review of family cancer history.

The value of a physical examination for the detection of cancer is proportionate to the thoroughness with which it is carried out. The skin should be inspected in its entirety. Careful examination of all orifices should be done. Endoscopic examination should not be neglected, and certainly rectal and pelvic digital examinations are of paramount importance. The presence of hemorrhoids below may indicate a malignancy above. Unexplained hypochromic microcytic anemia may point to the need of a barium study of the colon. Careful check of lymph nodes should also be done. The value of the Papanicolaou smear in the detection of cervical cancer cannot be over-emphasized and this should be more frequently used. This test is also of value in the detection of gastric cancer and carcinoma of the lung. The use of x-ray examination of the upper gastrointestinal tract in patients with mild persistent digestive complaints, along with tests for gastric acidity, and for occult blood in the stool, are to be recommended.

The cost of the examination will, of course, vary according to the number of additional procedures that are necessary, but should be moderate in view of the number of expected negative examinations. Excessive charges would also have the effect of discouraging repeat examinations at regular intervals, which would be the ideal in any well directed cancer detection program.

As a surgeon, I was interested to read in a recent publication of the American Cancer Society that the cancer death rate among surgeons is only 66 per cent of the general rate, or one-third lower. They concluded that surgeons not only have proper knowledge of cancer facts but they act promptly on that knowledge. Many surveys on cancer mortality emphasize the importance of acting quickly once the presence of cancer is detected. Thus, Chamberlain, in a recent survey on lung cancer stated that an average of 2-3 months delay followed the demonstration of the carcinoma and its removal in a large series of cases. Hence, we see that if we are to lower the death rate further in various forms of cancer we must shorten the time prior to detection of the cancer and minimize any delay after its

demonstration. Reticence in advising surgery until we are sure cancer is present may mean delaying the treatment beyond the time when a cure can be expected. The presence of a questionable lesion, whether it be in the breast, cervix, or lung, constitutes an emergency situation. The accompanying table (table I) published by the American Cancer Society serves to emphasize what we have to gain in lives saved by prompt treatment of various types of cancer.

The following case reports were selected from the files of the Cancer Clinic of the Spartanburg General Hospital to illustrate the value of routine cancer detection examinations:

A 50 year old, white, married female, gravida VI para VI, had an examination in a cancer detection center in January, 1955. At this time examination of the cervix revealed evidence of mild cervicitis. A Papanicolaou smear was taken. This was reported to show evidence of possible malignancy. Accordingly, a biopsy was made from the cervix which revealed intraepithelial carcinoma of the cervix. On Feb. 1, 1955, the patient was admitted to Spartanburg General Hospital and on the following day bilateral salpingo-oophorectomy and panhysterectomy were done. On pathological examination chronic cervicitis with intraepithelial squamous carcinoma was found. Follow-up examinations at six months intervals after surgery have shown no evidence of recurrence.

A 42 year old white female was seen in the office of a local physician for a routine cancer detection examination. On examination a darkly pigmented lesion was found on the skin of the left scapular region. Further questioning revealed that there had been some stinging sensation in the mole and that there was some bleeding from the mole three days before. The patient was admitted to Spartanburg General Hospital on Jan. 1, 1956 and a wide excision of this lesion was done and a skin graft applied to the defect.

Pathological examination revealed a malignant melanoma of the back of the shoulder.

The first case illustrates well the value of cytological examination of cervical and vaginal smears as a part of the routine cancer detection examination in females. The pathology department at our hospital suggests that smears be taken from the posterior fornix of the vagina and from the endocervix. For the latter, either a small eurette or a small bulb suction may be used to obtain cells from the cervical canal. Smears should then be made on several clean slides. The slides should then be immersed in an alcohol-ether mixture before they are completely dry in order to obtain a satisfactory stain.

In conclusion, I would like to emphasize the importance of the routine chest x-ray as an important screening procedure for carcinoma of the lung. According to Oehsner, this simple procedure will provide immediate diagnosis in 84 per cent of the instances in which carcinoma is present. I would like to refer again to Table I to demonstrate the importance of carcinoma of the lung as a cause of death from malignancy. In a man past 40 with a history of cigarette smoking over a considerable period of time, the demonstration of a silent lesion by x-ray represents a most happy diagnostic find, since according to Overholt as many as 75 percent of such lesions will show no evidence of lymphatic spread at the time of resection.

As we begin this drive, let us try to prevent the one out of every four cancer deaths that occur needlessly because treatment was begun too late!

Table I

Kind of Cancer	Present cure percentages	Possible cure percentages	Lives now lost each year	Lives lost which could have been saved through earlier detection
Uterine cancer	30%	70%	15,000	8,600
Breast cancer	35%	70%	20,000	10,800
Rectal cancer	15%	70%	10,000	6,500
Mouth cancer	35%	65%	3,000	1,400
Skin cancer	85%	95%	3,000	2,000
Lung cancer	5%	50%	24,000	11,400



# Committee Reports

## COMMITTEE ON MATERNAL WELFARE

The Committee on Maternal Welfare does not have a report at this time. Its chairman, Dr. Frank B. C. Geibel, had a coronary a few weeks ago. The data is in his possession and he is at this time not able to make it available.

We should like, however, to state that in 1955 there were a total of 65 maternal deaths, four white and 61 colored. This is a reduction of seven deaths over 1954 when there were 72 maternal deaths, 19 white and 53 colored. Hemorrhage far out-ranked the other causes of deaths, next being embolus (pulmonary, coronary and cerebral), and third was toxemia. It was noted that there were only three deaths from infection, which up until this year has been one of the three leading causes of maternal deaths in South Carolina. We do not have access to the records giving the opinion of the Committee as to the number of preventable deaths and as to the cause of death after review by the Committee. A full report will be presented later.

Hilla Sheriff, M. D.  
Secretary

## INSURANCE COMMITTEE

Your Insurance Committee this year continued its study of mal-practice insurance, retirement income insurance, and health and accident insurance for the Association.

1. So far as mal-practice insurance was concerned, it is still considered not feasible to attempt to get this insurance on a group basis. The companies continue to shy away from mass insurance of this kind. However, it may be of interest to the Association to note the favorable position that South Carolina physicians are in at the present time so far as premiums for this type of insurance is concerned. Generally, the Southern states where mal-practice suits have been less than those of their Northern neighbors, the mal-practice insurance rates are less. The State of South Carolina moreover enjoys a much more favorable rate than does other Southern states even. For instance, a basic policy of \$5,000/\$10,000/\$5,000 coverage for a physician in South Carolina costs \$30 per year. In North Carolina this same coverage costs \$45 per year. The Insurance Committee recommends that our Association take cognizance of this fact and do everything within our power to keep these premium rates low. The rates, of course, are due to experience rating of the various companies concerning mal-practice suits within the State. We all realize that most mal-practice suits are a sort of blackmail, and, in fact, are not much less than legalized extortion. In view of this fact, it is

hard to keep an eager-beaver lawyer from bringing suit for a discontented patient. However, if we practice our medicine as it should be practiced, we have nothing to fear from this type of extortion, and if our Association presents a united front against such attempts and does away with petty jealousies and discontent within its own ranks, we should not fear adverse medical testimony, against a conscientious practitioner.

2. The study of plans for retirement income are still in abeyance, pending Social Security Legislation now in Congress. Whether or not physicians are to be included in the Social Security Bill will have a bearing on our Insurance Program. Also, the passage of Jenkins-Keogh-Reed-type Bills will have a great deal to do with the plans as we shall want to present them. We hope that by next year we will be able to offer something definite along this line.

3. Health and Accident Insurance: To complete this report, we would like to incorporate a letter written by your Insurance Committee and received by each doctor in the Association concerning health and accident insurance.

"To All Members of The South Carolina Medical Association:

"The South Carolina Medical Association has secured accident and health coverage for its members through the Educators Mutual Insurance Company of Lancaster, Pennsylvania.

"This insurance comes to us as a result of over a year's study by your Insurance Committee of various plans offered to our Association by insurance firms from all over the country. In all, about seventy-two (72) different plans were studied. These plans were first obtained for us through our insurance representative, Mr. Ransome Williams of Columbia, South Carolina; and he, in turn, submitted to your Insurance Committee for their study the four which he considered the best of the lot. Of these four, your Insurance Committee felt that the one offered by Educators Mutual Insurance Company was by far the best that the Committee had ever seen.

"This plan will be presented to you in detail through a brochure which should reach you through the mails in the next day or two. You will notice coverage is available in amounts from \$25.00 per week up to \$100.00 per week, according to the option and plan that you select, and is payable either for five years or for life.

"We do not believe that there is on the market today a more comprehensive and complete policy at comparable rates. As you know, by buying this insurance as an Association we have been accorded certain definite advantages: (1) During the installation per-

iod every member of our Association is guaranteed coverage regardless of his physical condition as long as he is actively at work in the practice of his profession and is under sixty-five (65) years of age. (2) There are two plans which call for payment of benefits for sickness up to five years or for life, affording a choice of different options to suit the individual budget. (3) No individual policy can be cancelled by the insurance company after it is issued unless all such policies issued to members of our Association are terminated at the same time on an anniversary renewal date. This means that once your policy is issued the chances are very slim that you will lose it, since in order for the insurance to become effective, 51% of the membership of our Association must take the coverage, and any company that has seven or eight hundred policies issued in one State will think a very, very long time before lapsing insurance on this magnitude. (4) The premium is considerably less than usually charged for policies with individual underwriting.

"This is a cooperative effort on the part of the South Carolina Medical Association to work with the Educators Mutual Insurance Company to build up a program of accident and health insurance in this State which will be of great benefit to both parties. Considerable time and study were put into this proposal by the Educators Mutual Insurance Company.

"It is of interest to note that the sickness benefit for life which is included in Plan #2 of this coverage with its non-confinement privileges is unique in insurance coverage—particularly since the initial period of non-confining insurance is for five years before the life-time benefit rate starts.

"In order for this insurance to be effective it has been previously stated that 51% of the membership must participate. In order for the representatives of the Educators Mutual Insurance Company to canvass all of the doctors who will want to take this coverage, it is necessary that we as members of the South Carolina Medical Association cooperate with them to this extent: When we receive the brochure which describes this insurance, it should be studied carefully and the application blank filled out and returned as soon as possible. It is hoped that 51% of the membership will subscribe by mail within a few weeks so that the plan might get started at once.

"However, if the required percentage does not respond to application by mail, our members will be called upon individually by representatives of the Company who will be glad to answer any questions which may not be clarified by the brochure. If it is necessary for these men to make a personal visit in order to explain the plan, your Insurance Committee earnestly requests that you afford them every courtesy. They are not trying to sell you anything, but to give you an opportunity to participate in what we consider the finest plan of accident and health insurance ever offered to any organization.

"Attached to this letter is a business card which, when presented by Mr. Arthur T. Ousley or Mr. J. Boyce Talbert, Jr., will identify them as General Agents for Educators Mutual Insurance Company, and authorized insurance representatives of the South Carolina Medical Association. When your office nurse hands you this card with the statement that the representative is in your waiting room, please make an honest effort to see him as soon as possible so that he might go on to the next doctors on his list, thereby facilitating and expediting the handling of this program."

The Insurance Committee recommends that an Insurance Committee be continued so that further study of this important subject can be kept up-to-date for the Association.

Respectfully Submitted,

R. W. Hanckel, Jr.

E. D. Guyton

Joseph P. Cain, Jr., Chairman

#### COMMITTEE ON LEGISLATION AND PUBLIC POLICY

Your Committee has, during the past year, conferred with other Committee Chairmen, officers of local societies, members of council, the President of the South Carolina Medical Association, and representatives of the American Medical Association in matters pertaining to legislation and public policy in this State and nationally. Your Committee was represented at the Regional Legislative Conference held in Atlanta, Georgia on November 6, 1955, at which time matters pertaining to national legislation in which the medical profession was interested, was discussed. Letters were sent to members of the National Congress concerning bills in which the Medical Association had interests, particularly true in the case of the Social Security Act.

The two most important bills before the South Carolina legislature in which doctors had interest were the bill to outlaw naturopathy in South Carolina and a bill of the optometrists in which they sought more equal recognition with the ophthalmologists of the state. The bill on naturopathy developed into a very hot fight in the legislative halls and behind the scenes. Your committee cooperated with council in conferences, spoke against the measure in committee hearings, and individually informed many members of the legislature as to the true facts in the naturopathy case. Little opposition developed in the House; however, in the Senate very strong opposition developed to the position of the Medical Association and numerous amendments were attempted to be attached to the bill. All of the amendments were killed. When the final vote was taken on the Naturopathic Bill, no dissenting voice could be heard.

Your Committee indorsed heartily and sought in every way to cooperate with the ophthalmologists of the state in fighting the Optometrists Bill. Much information was passed individually to senators which was helpful in giving them information concerning

the bill. At present the bill is in the committee and although attempts have been made to get it out of the committee, it appears that it will probably stay there until the end of the session.

At the 1955 meeting of the South Carolina Medical Association two resolutions were referred to the Committee on Legislation and Public Policy. One had to do with the administration of diphtheria vaccine and the other with noise in industry. The recommendations of the Committee are as follows:

A. The resolution submitted by Dr. R. L. Crawford of the Kershaw Medical Society was as follows:

"WHEREAS, Diphtheria is a preventable disease and because it is still prevalent in our State, BE IT RESOLVED, That this body go on record as favoring legislation for compulsory diphtheria immunization of all children by their first birthday."

Recommendation—Approved.

The question of how and where it will be enforced was brought up by one member of the Committee. The Society might make some recommendation in this regard or leave this detail to be worked out by those preparing such legislation.

B. Noise in industry—The suggestions for South Carolina included in the resolutions are as follows:

1. "A new department of the State Board of Health headed by an otologist and employing some audiologists and industrial engineers for the following purpose:

(a) Control of noises in industry which are preventable.

(b) Pre-employment audiograms, to put the right persons at the right jobs and to prevent deafness caused in already hard-of-hearing persons.

(c) Routine examination with audiograms every six months.

2. Amendment of the Workmen's Compensation Act to specify the amount of liability in case of hearing loss, using the Wisconsin Act as a helpful guide.

3. To permit the otologists or even ask them to talk to industry to get their cooperation for noise control and an audiometer examination prior to a law requiring that."

Recommendation of Committee: The general consensus of opinion was that this resolution demands further study. It was generally felt that we should be ready to advise the legislature or Workmen's Compensation Commission concerning this matter but should not take the lead in promoting legislation at present. We feel that further study is necessary.

Respectfully submitted,

Frank C. Owens, M. D., Chairman

#### COMMITTEE ON THE CARE OF THE PATIENT

The Committee on the Care of the Patient did not

have a meeting during the past year. The Chairman feels that this is an important committee and could do some good work under a different setup, and recommends its continuation.

E. C. Hood, Chairman

#### REPORT OF CANCER COMMISSION

The Cancer Commission continued to serve in an advisory capacity to the Division of Cancer Control of the State Board of Health. All Cancer Commission meetings were held jointly with the Executive Committee of the South Carolina Division of the American Cancer Society in order to dovetail the cancer control activities of the State Board of Health and the voluntary agency. The cordial relationship between the State Board of Health and the South Carolina Division of the American Cancer Society continues with the result that the cancer problem is being attacked cooperatively, systematically, and vigorously.

Your Cancer Commission is happy to report that state money for the hospitalization of indigent state-aid cancer patients was increased from \$275,000.00 to \$325,000.00 for the fiscal year beginning July 1, 1955. Because of this increase in the appropriation it appears that the 11 state-aid cancer clinics operated by the Division of Cancer Control, State Board of Health, will function for a twelve months period.

A formal application from the members of the Greenwood County Medical Society to open a state-aid cancer clinic at the Self Memorial Hospital was received. The Cancer Commission passed favorably on this application and its first cancer clinic session was held in September 1955.

Upon our recommendation the Division of Cancer Control, State Board of Health, assumed the financial responsibility for the salaries and travel of two field nurses who were formerly paid by the South Carolina Division of the American Cancer Society.

It should be called to your attention that the American College of Surgeons has changed its approval procedure for cancer clinics. This revision states "It shall be a requirement for approval of cancer clinics that a properly functioning cancer registry be in operation which records every patient, private and public, in-patient and out-patient, upon whom the diagnosis of cancer is established.

It is gratifying that the state-aid cancer clinic personnel, et al, are working towards setting up all-inclusive cancer registries. In this new procedure follow-up reports will be periodically requested by the Cancer Registries from the cancer patient's private physician. The follow-up form sent to the private physician will require very little writing by the private physician but will contain sufficient data to keep the Cancer Registry up to date on the private cancer patient's status, and will provide a clear picture of the cancer problem in this state. Of course, the information received from the physician relative to his private patients will be used only for statistical purposes, and there will be no interference with the

handling of the patient by his physician. Your cooperation in this project is earnestly requested.

In conclusion, your Cancer Commission wishes to state that progress is being made in the cancer control efforts, and wishes to thank each physician in South Carolina for his interest, cooperation and

assistance in furthering this Program.

Dr. J. R. Young, Chairman

Dr. John C. Hawk, Jr.

Dr. Thomas A. Pitts

Dr. R. C. Horgner

Dr. Henry Plowden

Dr. M. Ed Parrish

Dr. Furman T. Wallace

Dr. Harold S. Pettit

Dr. John K. Webb

## REPORT OF THE EXECUTIVE COMMITTEE OF THE STATE BOARD OF HEALTH

The Executive Committee of the State Board of Health attempts to give, in this its annual report, an overall picture of public health work in South Carolina. We will omit, as far as practical, statistics and details which can be found in the annual report to the Governor. We trust this meets with your approval.

It is our opinion that public health work in South Carolina has assumed its proper level. That is to say a good comprehensive program is being carried on with as little encroachment as possible on the rights of private practice. Also it is encouraging to see that the legislative bodies provide reasonable sums of money to maintain the work without too much pressure from the personnel of the several departments.

The work of all bureaus are operating upon a twelve month basis. For several years some work, notably the cancer program, had to be curtailed before the end of the year because of lack of funds. Last year and again this year, \$50,000.00 was added to the appropriation by legislature for this cause and this has greatly improved the cancer work. There are now eleven cancer clinics operating in the state.

The tuberculosis campaign is being carried on in an efficient way by the combined efforts and splendid cooperation of those in the central office, the County Health Departments and the State Sanatorium. The heart work is also accomplishing fine results with the full cooperation of its several agencies.

The V. D. Control Section has brought out some interesting facts in regard to venereal diseases in this state. There are far more cases being reported now than in recent years. This is probably not due to an actual increase but to better cooperation on the part of the private physician in the matter of reporting his cases. For the past several years the private doctors have reported only 4.4% of all venereal cases from all sources. So far this year private physicians are now reporting over 37% of the cases. The report of cases by the private doctor has been very much retarded because of the fear of an embarrassing breach of confidence between him and his patient. It is not necessary to report by name unless the workers in this division are needed to assist in locating the source of the infection and helping to check to see that adequate treatment is being received. We would like to urge every doctor in our association to report all cases of venereal diseases so that a true estimate of the incidence of these diseases can be obtained.

In the Crippled Children Program it will be of interest to report that two Rheumatic Fever Clinics were re-established this year, one of these in Green-

ville and one in Columbia. As of January 1, 1956, there were 5,414 children on the Crippled Children Program. During the past calendar year, 3,216 children were treated under this program. The diagnoses fell mostly under the general groups of poliomyelitis, cerebral palsy, club feet and other congenital deformities, rheumatic fever and burns. The age limit at the Convalescent Home has been lifted from 12 years to the age limit served by the Crippled Children Program.

The establishment of a Physical Medicine Department of the Medical College in Charleston offers facilities for the treatment of paraplegies and other cases. Heretofore such cases had to be sent out of the state.

There was available this year a sum of money for the establishment of a Rehabilitation Center but there was no institution in the state that could furnish the matching funds necessary to qualify and the fund had to be turned over to another state. If similar funds are available during the coming year, we hope it can be kept in our own state.

We would like to call your attention to the rapidly increasing demands for service from the Bureau of Vital Statistics. More and more agencies and schools require facts as to date of births, deaths and marriages before granting benefits or settling claims. The department answers an average of approximately 250 requests daily.

The Legislature passed two acts which concern the relations between the doctor and the Vital Statistics Bureau. One was to increase the fee from fifty cents to one dollar for certified copies of birth, death and marriage certificates. The other act had to do with filing of records in regard to adoption of children.

The Division of Dental Health continues to promote dental health education with emphasis on fluoridation of water supplies and topical application to teeth of school children. Seven thousand seven-hundred and eighty eight received this treatment during the past 12 months.

Many of the divisions have been very busy with routine programs and much has been accomplished but will not be elaborated upon here in order that we may devote considerable space to the poliomyelitis prevention inoculation program.

After the demonstration in 1954 that the new poliomyelitis vaccine developed by Dr. Salk was effective in preventing paralytic poliomyelitis, South Carolina, with other states, was prepared to begin the inoculation of children with this vaccine in 1955. Soon after

the initiation of the vaccination program in April of 1955, some cases of paralytic poliomyelitis developed in some children given vaccine from one manufacturer. This resulted in a withdrawal of this manufacturer's vaccine and the cessation of the program for re-evaluation of the manufacture and testing techniques. This re-evaluation by the U. S. Public Health Service, with the advice of a group of experts on virology, discovered the difficulties in the testing of the vaccine and led to measures for correcting these errors. The vaccine was finally in accordance with the new methods of testing declared to be as safe as a vaccine could be made at the present time and the program of inoculating children was reinstated. As a matter of fact, South Carolina had no difficulties from any of the vaccine used in the State, which was from a different manufacturer than that which caused the early difficulties.

The National Foundation for Infantile Paralysis provided vaccine and sponsored a program of inoculating second grade school children. This program in South Carolina was carried out by the various County Health Departments with the assistance of volunteer private physicians and nurses. Under this program 118,075 children, or 78.8% of those enrolled in the second grade received first doses and 87,780 of this number received second doses. This is 58.6% of those enrolled in the second grade in South Carolina.

The National Poliomyelitis Vaccination Assistance Act of 1955 appropriated \$791,998 as South Carolina's share in the poliomyelitis vaccination program. The State Board of Health was designated by the Governor as the State Agency to conduct this vaccination program in South Carolina. On the request of the State Board of Health a State Advisory Committee was appointed by the President of the South Carolina Medical Association consisting of three doctors, a representative of wholesale druggist, one retail druggist, one representative of the state parents and teachers, and one from the State Department of Education. The President of the State Medical Association and the State

Health Officer were ex-officio members of the Committee.

The vaccine has been distributed to the counties on a population basis. The vaccine is administered in the various counties by the County Health Department and private physicians on the basis of agreements between the Health Departments and the local Medical Societies.

This vaccination program began in November, 1955. The vaccine was not readily accepted by the people during November and December and even the short supply of vaccine was adequate to supply the demands. During January and February the vaccination program became more acceptable to the public and requests for its administration to children have increased markedly each month since January. The supply has barely been sufficient to meet the demands in the first few months of 1956. There is some indication that vaccine will be released in greater quantities and more frequently as 1956 progresses.

Since the inception of this program in November, 1955, to March 31, 1956 the total of 348,975 cc. of vaccine have been distributed in South Carolina, of which 35,707 cc. were distributed through commercial channels. The remainder was distributed through the County Health Departments from vaccine purchased with public funds. During this period of time, 276,256 cc. have been administered and reported to the State Board of Health. This, together with the vaccine administered under the second grade inoculation program, makes a total of 499,051 cc. that have been given in South Carolina during the period April 12, 1955, to March 31, 1956.

No children who have received this vaccine have had any reactions that would not be expected to occur with any other injection.

Of the estimated population 5 to 9 years of age in South Carolina 64½% have received one dose of vaccine and 55% have received two doses. A relatively small per cent of the estimated population under 5 and 10 to 14 have been given vaccine as of this date,

(Continued on Page 194)

## Exhibitors

### THE AMERICAN BEDDING COMPANY

The American Bedding Company specializes in extra firm NATURAL POSTURE bedding that is constructed according to principles outlined by orthopedic authorities.

Their exhibit shows two of the three numbers in the NATURAL POSTURE series and features the Health-O-Pedic mattress and box spring—which has an extra firm center, but luxury smooth top.

Ask about their special professional price.

### SANDOZ PHARMACEUTICALS

Sandoz Pharmaceuticals cordially invites you to

visit our display at the South Carolina Medical Association—Booth #13.

**CAFERGOT**—Available in oral and rectal form for effective control of head pain in migraine and other vascular headaches.

**FIORINAL**—A new approach to therapy of tension headaches and other head pain due to sinusitis and myalgia.

**BELLERCAL**—Valuable as an automatic inhibitor in a variety of functional ills—the volume of favorable clinical reports is constantly increasing.

Any of our representatives in attendance will gladly answer questions about these and other Sandoz products.



# BLUE CROSS . . . BLUE SHIELD



Before a Blue Cross or a Blue Shield plan can determine what program of benefits it can offer, hospital and medical services must be analyzed and classified in such a way that insurance principles can be applied. After all, Blue Cross and Blue Shield are insurance plans and their operations must be in accordance with principles of insurance.

There are three major medical areas: therapeutic, diagnostic, and preventive. The whole field of preventive medicine must be rejected by Blue Cross and Blue Shield because it is not insurable for two reasons. First, there is no certainty of utilization or occurrence of claims. There is no way to estimate an experience rating. Demand for preventive medical services is subject to the whim of the insured and not to necessity. Second, the fact that one is insured immeasurably increases the risk, when it comes to preventive medicine.

Therapeutic and diagnostic care has to be broken down in order to apply insurance principles to them. Medical and hospital care in connection with chronic illness has to be ruled out, because, again, there is no certainty of occurrence; no experience index can be determined; no cost formula can be fixed. Elective care has to be omitted from insurance coverage for the same reasons. There is left *necessary* therapeutic and diagnostic care. From these, procedures of minor financial consequence should be omitted from insurance coverage. To include them would be of little service to the member and would add definitely to the cost of coverage shared by all members. The costs of administration would be excessive. There is left then for coverage by a Blue Cross or Blue Shield contract *necessary* major medical and hospital care. In conjunction with these coverages, various devices which are designed to serve as safeguards are applied. These are deductions, co-insurance, waiting periods, and other contract limitations. Repetitive procedures such as injection treatments, endoscopic examinations, progress x-ray studies, electrocardiograms, etc., must have limitations placed upon them; otherwise they become uninsurable because their repetition is governed too largely by the whim or curiosity of the doctor or the patient.

It is too late to insure a house after it has caught fire. Similarly, it is not possible under sound insurance practice to insure a member against the costs of treatment of conditions already present at the time the membership certificate is issued. Just as it is not necessary that the house be burned to the ground before it becomes uninsurable, so it is not necessary that the individual be in need of immediate or early treatment of an existing condition to make him uninsurable in regard to that condition.

Blue Cross and Blue Shield assume an intermediate attitude toward coverage of individuals with already present conditions which already do or probably shall

require treatment. Such individuals are not denied membership. If they are members of groups, a waiting period of from six to twelve months is required before treatment of the already present condition or its complications is covered. In very large groups all waiting periods may be waived. In non-group applicants, if some such condition is present, recognized, and admitted on the application, the applicant is not accepted. If it has not been recognized until after the effective date of the contract, the waiting period is enforced; however, it should be stressed that knowledge of such pre-existing condition is not necessary to make the condition subject to the waiting-period requirements.

There is then left a residual of medical and hospital care in connection with necessary diagnosis and treatment. Stress again should be laid on the word *necessary*. Blue Cross does not agree to furnish hospital care for minor illnesses or complaints or for diagnostic procedures which can be done equally as safely on an outpatient basis as on an inpatient basis. Neither does it agree to furnish unnecessary diagnostic procedures, and especially x-ray studies, whether these are done during a legitimately covered necessary period of hospitalization or not. Our contract seeks to limit such studies by excluding coverage of x-ray examinations not consistent with the diagnosis of the condition for which the patient is hospitalized.

The greatest difficulties our plans have had have stemmed from the fact that we do not insure until after the expiration of waiting periods against the costs of treatment of conditions which were already present when the patient joined the plans, and that we insure on a cash indemnity basis against the cost of hospital treatment which is primarily for diagnosis.

Frequently, embarrassment, resentment, and disappointment for all concerned would be avoided by postponing an elective operation for one or more months until the waiting period had expired. Once the operation is performed, it is difficult to admit and to explain to the patient that the condition had undoubtedly been present at the time he joined the plan, and therefore was not covered by the membership agreement until after the expiration of a waiting period.

It is perhaps even harder to tell a patient that suggested diagnostic studies will be covered only by a relatively small cash indemnity rather than on an a full payment basis because they are primarily diagnostic, and to suggest to him that he would probably save money by having the studies done on an outpatient basis.

Until doctors and hospitals are fully cooperative in these matters, the plans will continue to have difficulties, and they will be faced constantly with the prospect of having to increase membership dues.

J. Decherd Guess, M. D., Medical Director

MINUTES  
of  
THE ANNUAL MEETINGS  
of the  
DIRECTORS AND MEMBERSHIP  
of the  
SOUTH CAROLINA HOSPITAL  
SERVICE PLAN

February 29, 1956

The Annual Meeting of the Board of Directors of the South Carolina Hospital Service Plan convened at 11:30 A. M. on February 29, 1956, in the Wade Hampton Hotel, Columbia, South Carolina. Mr. G. A. Buchanan, President, presided.

The following Directors of the Corporation were present: Mr. F. O. Bates, Mr. L. C. Fischer, Dr. J. R. S. Siau, III, Mr. A. Preston Nisbet, Mr. J. M. Daniel, Mr. C. A. Robb, Mr. Frank S. Adams, Dr. Robert Wilson, Jr., Mr. T. B. Stevenson, Mr. Raymond L. Willis, Mr. Henry J. Winn, Dr. W. T. Brockman, Dr. Thomas G. Dotterer, Mr. George A. Buchanan, Mr. M. L. Meadors.

The following Members of the Corporation were present: Mr. Richard G. Roach, Mr. J. K. Crowson, Mr. John Hash, Dr. W. A. Black and Mr. George L. Cunningham.

Staff Members attending were Mr. William Sandow, Jr., Mr. Russell W. Badger, Jr., Mr. A. C. Starin and Mrs. Lueile Fouché.

I.

Upon motion duly made and seconded, the Minutes of the Annual Meeting of February 23, 1955, and the Quarterly Meeting of November 23, 1955, were approved as circulated.

II.

Mr. William Sandow, Jr., Executive Director, discussed the January Operating Statement and Balance Sheet as well as the results of operations for the year 1955. In this latter regard a net gain of slightly over \$214,000.00 was attained for 1955. This figure was contrasted to a loss of slightly over \$257,000.00 for 1954.

III.

Dr. Robert Wilson, Jr., Chairman of the Nominating Committee, submitted the following slate of nominees to the Membership of the Corporation: Mr. G. G. Cromer, Anderson, S. C., Mr. J. M. Hamrick, Gaffney, S. C., Mr. Claude Weeks, Newberry, S. C., representing Hospitals; and Dr. W. A. Klauber, Greenwood, S. C., Dr. J. N. Gaston, Jr., Chester, S. C., Dr. George S. Rhame, Camden, S. C., Dr. M. M. Teague, Laurens, S. C., representing the Medical Profession; and Mr. R. C. McCall, Easley, S. C., Mr. P. W. McAlister, Jr., Laurens, S. C., Mr. R. W. Shand, Hartsville, S. C., representing the General Public.

Upon motion duly made and seconded, the nominations were closed and the Secretary was instructed to cast a unanimous ballot electing these nominees to the Membership of the Corporation, subject to their acceptance.

IV.

The Meeting then adjourned and immediately reconvened as the Annual Meeting of the Membership of the South Carolina Hospital Service Plan. The same persons were in attendance as listed above, and Mr. Buchanan announced that he held 31 proxies from absent Members.

V.

Upon motion duly made and seconded, the Minutes of the Annual Meeting of the Membership on February 23, 1955, were approved as circulated.

VI.

Mr. Sandow, Executive Director, reported briefly on events of the past six months and the current status of the Plan.

VII.

Upon a motion duly made and seconded, the following amendment to Article XI of the By-laws was approved, as follows:

" . . . The Board of Directors shall consist of not less than nine (9) nor more than thirty (30) in number (formerly twenty-four) (24), which must come from the following, with one-third (1/3) from each group (formerly 25%) . . . "

VIII.

Dr. Robert Wilson, Jr., Chairman of the Nominating Committee, submitted the following slate of nominees to the Board of Directors to succeed themselves for a 3-year term: Dr. John Fleming and Dr. H. M. Allison, representing the Medical Profession; and Mr. T. B. Stevenson and Mr. J. M. Daniel, representing Hospitals; and Mr. R. L. Willis, Mr. J. B. Norman and Mr. F. O. Bates, representing the General Public; to be elected as New Directors for a 3-year term: Mr. R. E. Toomey, Greenville, S. C., representing Hospitals; and Dr. G. N. Quantz, Rock Hill, S. C., representing the Medical Profession; to be elected as New Directors for a 1-year term: Mr. R. G. Roach, Orangeburg, S. C., Mr. J. E. Case, Sumter, S. C., representing Hospitals; and Dr. W. A. Black, Beaufort, S. C., representing the Medical Profession; and Mr. W. H. Carr, Spartanburg, S. C., Mr. A. B. Rivers, Columbia, S. C., representing the General Public. Dr. Wilson also submitted the following slate of Alternate Nominees as New Directors: Mr. Mark Stanton, Florence, S. C., representing Hospitals, Dr. Francis P. Owings, Union, S. C., representing the Medical Profession, Mr. G. Sims McDowell, Charleston, S. C., representing the General Public.

Upon motion duly made and seconded, the nominations were closed, and the Nominees and Alternate Nominees, were declared elected unanimously, subject to their individual acceptance.

IX.

Dr. Wilson submitted the following slate of Nominees for Officers of the Board for 1956: President, Mr. G. A. Buchanan; Vice President, Mr. M. L. Meadors; Secretary, Mr. A. P. Nisbet; and Treasurer, Mr. J. B. Norman.

Upon motion duly made and seconded the nominations were close, and the new Officers were declared elected unanimously.

X.

Upon motion duly made and seconded, and approved, a vote of thanks to the Board of Directors and the Executive Staff for their services during 1955 was placed in the records.

There being no further business, the Meeting adjourned at 12:20 p. m.

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MINUTES OF THE MEETING  
OF THE RECONSTITUTED BOARD  
OF DIRECTORS  
OF THE SOUTH CAROLINA HOSPITAL  
SERVICE PLAN

The Reconstituted Board of Directors of the South Carolina Hospital Service Plan met at 12:20 P. M. on February 29, 1956, in the Wade Hampton Hotel, Columbia, South Carolina. Those present were the same as listed above, with Mr. Roach and Dr. Black now present as Directors.

I.

Upon motion duly made and seconded, Mr. Buchanan was authorized to appoint a 7-man committee to study the problems of and make recommendations on a permanent site for the Plan.

There being no further business, the Meeting adjourned at 12:35 P. M.

Respectfully submitted,

A. Preston Nisbet

Secretary

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## NEWS

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Dr. Robert M. Johnson has announced that Dr. M. Grayson Evans is now associated with him in the general practice of medicine at Riverland Terrace, Charleston.

Dr. Roy C. Campbell of Orangeburg has been notified that he has passed an examination given recently by the American Board of Surgery and is now a certified diplomate.

At the annual meeting of the Board of Directors of the South Carolina Division of the American Cancer Society in Columbia on April 4, Dr. Edgar Pund, president and pathologist of the Medical College of Georgia said men in his profession are optimistic concerning cancer because they see so many patients who have definitely been cured.

During the meeting Dr. Pund presented the annual award of the American Cancer Society to the South Carolinian who in 1955 made the greatest contribution to the fight of cancer. The award went to Dr. H. Rawling Pratt-Thomas, pathologist at the Medical College of South Carolina.

Dr. J. A. Fort of Columbia was hospitalized recently following an automobile collision.

The seventh annual Frank Hilton McLeod Memorial Scientific Assembly was held in Florence on March 15, 1956. Papers were presented by Drs. Earl R. Jones, Henry L. Rigdon, Walter R. Mead, and R. F. Zeigler, Jr. A pathological conference was held. The principal speaker at the meeting was Dr. Thomas H. Alphin, Director of the Washington Office, American Medical Association.

Dr. James Dorman Turner announces the opening of his office for the practice of medicine in Winnsboro.

Dr. Turner is a graduate of Furman University, and Emory University Medical School, class of 1940. Upon completion of Internship at Emory University Hospital, Atlanta, Ga., Dr. Turner served with the U. S. Army Medical Corps for 4½ years. For the past ten years he has practiced general medicine and surgery in Nashville, Ga.

The York County Medical Society met on March 16, 1956 for their regular meeting and elected the following officers for the coming year: Dr. John M. Pratt, York, S. C., president; Dr. Frank S. Faire, Rock Hill, S. C., vice-president; and Dr. G. F. Elliott, Jr., York, S. C., secretary-treasurer.

It was also decided that after this meeting the York County Medical Society would start meeting on the third Tuesday of every month except for the months of June, July and August.

Dr. Herbert Blake, Anderson, was elected president of the South Carolina Obstetrical and Gynecological Society. He replaces Dr. Jack B. Parker, Greenville.

Other new officers who will serve in 1957 are Dr. Lawrence L. Hester, Jr., Charleston, president-elect, and Dr. James E. Bell, Sumter, secretary-treasurer.

The group also elected 10 new members.

They are Dr. Larry N. Bellew, Greenville; Dr. Sam Fleming, Spartanburg; Dr. Harwood Beebe, Jr., Spartanburg; Dr. Mabel Frew, Rock Hill; Dr. Joseph Moore, Greenville; Dr. Stanton Collins, Conway; Dr. Niles Borop, Aiken; Dr. Seth Latham, Aiken; Dr. Robert Lumpkin, Georgetown; and Dr. E. J. Dennis, 3rd, of the staff of the Medical College of Charleston.

Dr. George H. Orvin of Charleston has been elected governor of the South Carolina district of Sertoma International.

Dr. Orvin, a charter member of the Charleston Sertoma Club, is a member of the Charleston County Board of Health, a member of the executive board of the South Carolina Industrial Medical Assn., vice president of the Medico-Chirurgical Club and a member of the house of delegates of the South Carolina Medical Assn.

He is a 1943 graduate of The Citadel and a 1946 graduate of the Medical College of South Carolina. He also is a past president of the Citadel Brigadier Club.

Dr. Orvin is medical director for the Atlantic Coast and South Atlantic Life Insurance Companies, chairman of the Red Cross Blood Program in Charleston, and a member of the Governmental Affairs Committee of the Greater Charleston Chamber of Commerce.

Dr. Sydney Garrett, a native of Six Mile, is now associated with the Cannon Memorial Hospital in Pickens in the general practice of medicine.

Dr. Garrett is a graduate of Berea College, and of the Medical College in Charleston. He is a member of Phi Rho Sigma, medical fraternity. He served his internship at Columbia Hospital, Richland County.

The Piedmont Proctologic Society, composed of members of the American Proctologic Society who practice in Virginia, North Carolina, South Carolina, Georgia, and Tennessee, has for its present officers Dr. G. Farrar Parker, Asheville, president; Dr. W. Clough Wallace, Greenville, vice president; and Dr. Fred B. Hodges, Atlanta, secretary-treasurer. The society meets twice a year.

Dr. Richard W. Hanckel, president of the Charleston County Medical Society, welcomed the group at its meeting in Charleston, March 17. Speakers during the morning session included Dr. Edgar Boling, assistant professor of Proctology, Emory University School of Medicine at Atlanta, and Dr. Robert V. Terrell, assistant professor of Clinical Proctology, Medical College of Virginia.

Dr. H. Grady Callison, Anderson, county health officer and former director of local health services for the State Board of Health, has been honored by being appointed to the Council on Public Health and Education, which is an important committee to the American College of Preventive Medicine.

Dr. William F. Dukes of Branchville, S. C., has been elected vice president of the Fellows Assn. of the Alton Ochsner Medical Foundation, New Orleans.

The association is composed of graduate physicians having completed or presently engaged in the Foundation's Fellowship program of advanced training in the various medical and surgical specialties.

Received his M. D. degree from the Medical College of South Carolina and interned at the Orangeburg Regional Hospital. Following internship he began his specialty training in general surgery at the Ochsner Foundation in July, 1954.

#### CLINICAL DEMONSTRATION ON CEREBRAL PALSY

Dr. Perlstein, who will address the Association on Wednesday afternoon, will also give a special clinic at 11:00 a. m. on Wednesday, at which he will discuss actual cases of cerebral palsy and the management of the disease. All members are invited to attend. The place will be announced later.



*Frederick E. Kredel, M. D.*

#### SOUTH CAROLINA SURGICAL SOCIETY

The meeting at Charleston was opened on March 23 with a talk on Cytologic Diagnosis by Dr. H. R. Pratt-Thomas. This was followed by a talk on Experimental Aspects of Adrenal Function in Surgical Stress by Dr. Robert P. Walton and then by the subject, The Sludging of Blood in Trauma and Burns by Dr. Melvin H. Knisely.

At 5:00 p. m. a presentation of a portrait of Dr. Frederick Kredel by his former residents was made to the Medical College of South Carolina. Dr. Alvin G. Brown of Rock Hill made the presentation and Dr. Kenneth M. Lynch, President of the Medical College of South Carolina, accepted the portrait on behalf of the Medical School.

A business meeting was held immediately following this. Dr. James Allen of Florence and Dr. Edmund G. Taylor of Columbia were elected to membership.

At 7:15 p. m. Friday evening a dinner was held in the Francis Marion Hotel for the members of the Society and their wives.

On Saturday, March 24, a program consisting of operative clinics including the following addresses was given:

Recent Advances in the Field of Thyroid Disease  
Dr. Henry Donato  
Surgical Aspects of Potassium Metabolism  
Dr. Louie B. Jenkins  
Surgical Treatment of Aneurysms  
Dr. J. Manly Stallworth

The meeting was concluded with a luncheon at the Fort Sumter Hotel.

(Continued on Page 194)

# Program, Scientific Session Annual Meeting

May 15th, 16th and 17th, 1956

WEDNESDAY, MAY 16, 1956

For the benefit of those doctors who will not be attending the meeting of the House of Delegates, the following scientific films will be shown at times specified in the small dining room:

- 9:15 A. M. "The Diagnosis of Uterine Malignancies"
- 9:35 A. M. "Use of the Artificial Kidney"
- 10:00 A. M. "Progressive Muscular Atrophies, Dystrophies, and Allied Conditions"
- 10:30 A. M. "Dermatoses of Industrial Workers"
- 11:05 A. M. "Nephrosis in Children"
- 11:40 A. M. "Psychoneuroses"
- 12:30 A. M. "Diagnosis of Cancer of the Stomach by Cytologic Methods"

## SCIENTIFIC SESSION

O. B. Mayer, M. D., President, presiding

- 3:00 P. M. "The Medical Aspects of Cerebral Palsy"  
Meyer A. Perlstein, M. D., Chicago, Illinois
- 3:30 P. M. "Treatment of Aneurysm and Occlusive Diseases of the Aorta"  
Denton A. Cooley, M. D., Houston, Texas.
- 4:00 P. M. Recess to visit exhibits.
- 4:30 P. M. Panel: "The Uses and Abuses of ACTH and Cortisone"  
Moderator: David F. James, M. D., Atlanta, Georgia  
Allergist: Kelly T. McKee, M. D., Charleston, S. C.  
Anesthesiologist: William S. Howland, M. D., New York, New York  
Pediatrician: Louis K. Diamond, M. D., Boston, Massachusetts

THURSDAY, MAY 17, 1956

- 9:00 A. M. Memorial Service
- 9:15 A. M. The President's Address—O. B. Mayer, M. D., Columbia, S. C.
- 9:45 A. M. "The Clinical Importance of Human Blood Groups"  
Louis K. Diamond, M. D., Boston, Massachusetts
- 10:15 A. M. "The Induction of Labor"  
C. Hampton Mauzy, M. D., Winston-Salem, North Carolina
- 10:45 A. M. Recess to visit exhibits
- 11:15 A. M. Panel: "The Newer Aspects of Blood Dyscrasias"  
Moderator: Charlton DeSaussure, M. D., Charleston, S. C.  
Hematologist: Claude Starr Wright, M. D., Augusta, Georgia  
Surgeon: C. Stuart Welch, M. D., Albany, New York  
Gynecologist: C. Hampton Mauzy, M. D., Winston-Salem, N. C.  
Pediatrician: Louis K. Diamond, M. D., Boston, Massachusetts
- 12:45 P. M. Luncheon Recess.
- 2:15 P. M. Panel: "Peripheral Vascular Disease"  
Moderator: Hiram L. Brockman, M. D., Spartanburg, S. C.  
Internist: William T. Foley, M. D., New York, New York  
Surgeon: Denton A. Cooley, M. D., Houston, Texas  
Radiologist: Harold S. Pettit, M. D., Charleston, S. C.
- 3:30 P. M. Recess to visit exhibits.
- 4:00 P. M. Clinico-Pathologic-Therapeutic Conference (see protocol)  
Moderator: F. E. Kredel, M. D., Charleston, S. C.  
Surgeon: C. Stuart Welch, M. D., Albany, New York  
Internist: William T. Foley, M. D., New York, New York  
Radiologist: Harold S. Pettit, M. D., Charleston, S. C.  
Pathologist: H. Rawlings Pratt-Thomas, M. D., Charleston, S. C.

# Notes on the Diagnosis and Management of "Dizziness"

## III. Ménière's Syndrome



**1. Paroxysmal Whirling Vertigo.** *This consists of sudden attacks of dizziness, often when the patient is at rest or asleep. The patient may feel that he himself is whirling or that fixed objects about him are whirling. The attack usually lasts for a few minutes; occasionally it is severe for weeks or subacute for months.*



### 2. Subtotal Hearing Loss.

*Deafness will usually affect the high tones and it may be unilateral or bilateral. Sometimes the hearing loss is severe and also progressive.*



**3. Tinnitus.** *This is usually unilateral and present in the ear with greater hearing loss and is without a definite pattern.*

Fewer diagnostic errors<sup>1</sup> will result if a "triad of symptoms" is required of patients with suspected Ménière's syndrome. These are the symptoms of typical Ménière's syndrome:

1. Severe paroxysmal vertigo which may be of two types; either the patient feels that he is whirling or that objects about him are whirling.
2. Fluctuating subtotal hearing loss, usually affecting the higher tones, is noted at the same time as vertigo.
3. Tinnitus, usually unilateral, is associated with the deafness and dizziness.

With Ménière's syndrome there is no definite localization<sup>2</sup> by the Bárány (vestibular reaction) test and results of the caloric test are not diagnostic. Physical examination should rule out disease of the central nervous or cardiovascular systems before a diagnosis is made.

"Treatment with Dramamine®. . . is effective<sup>3</sup> in aborting and preventing attacks of Ménière's syn-

drome . . . will prevent or arrest attacks of vertigo. It will also reduce the intensity of the tinnitus and so may save some of the hearing in the affected ear."

Dramamine is recommended for Ménière's syndrome as the sole therapy or in combination with other treatment programs.

It is a therapeutic standard also for motion sickness and is useful for relief of nausea and vomiting of radiation sickness and fenestration procedures.

Dramamine (brand of dimenhydrinate) is supplied in tablets (50 mg.); Supposicones® (100 mg.); ampuls (250 mg.); liquid (12.5 mg. in each 4 cc.). G. D. Searle & Co., Research in the Service of Medicine.

1. DeWeese, D. D.: Symposium: Medical Management of Dizziness. The Importance of Accurate Diagnosis, Tr. Am. Acad. Ophth. 58:694 (Sept.-Oct.) 1954.
2. Jackson, C., and Jackson, C. L. (editors): Diseases of the Nose, Throat, and Ear, Philadelphia, W. B. Saunders Company, 1945, pp. 368; 414.
3. Queries and Minor Notes: Ménière's Syndrome, J.A.M.A., 141:500 (Oct. 15) 1949.

A new edition of "Dramamine Reviews and Abstracts," containing digests of more than 100 recent articles, is available on request to . . .

**SEARLE**

P. O. Box 5110, B  
Chicago 80, Illinois

COMMITTEE REPORT  
(Continued from Page 187)

March 31, 1956, but these age groups are receiving the vaccine at the rate of about 30,000 each month. Slightly more than 3,000 prenatals have been given vaccine in this program.

In recent years, about 65.5% of the polio cases occurred in children under 10 years of age and another 16% in the age group 10 to 14 years.

There has been the finest cooperation between the Health Departments and physicians in the administration of this program. About one-third of the inoculations are being given by the children's family physicians.

As this is the year set up by statute for the election of all members of the Executive Committee of the

State Board of Health, the chairman and each individual member wishes to express our appreciation of the privilege of serving in our various categories. We especially wish to thank the medical profession for its understanding cooperation and the splendid support given the Board in the past few years.

Respectfully submitted:

Executive Committee, State Board of Health  
W. R. Wallace, M. D., Chairman

SOUTH CAROLINA SURGICAL SOCIETY  
(Continued from Page 191)

Dr. Edward G. Parker of Charleston was elected President of the South Carolina Surgical Society for 1957. Dr. Claude Perry of Anderson was elected Vice-President. Dr. J. Robert Thomason of Greenville was elected Secretary-Treasurer.

DELEGATES TO AMA



*Dr. George D. Johnson*



*Dr. William Weston, Jr.*



# The Journal of the South Carolina Medical Association

VOLUME LII

June, 1956

NUMBER 6

## AN ANALYSIS OF THE MEMBERSHIP OF THE SOUTH CAROLINA MEDICAL ASSOCIATION\*

O. B. MAYER, M. D.  
Columbia, S. C.

The President's address has, traditionally, been a philosophical and ethical dissertation to stimulate and inspire. This year I would like to present a different line of thought, namely: to offer a survey of our Association, or, in effect, take stock of our membership. The Association is no stronger than its members, and its service to the people of this State is no better than the talents and training of individual physicians. This State is advancing and progressing in many ways, some of which are startling. This Association must grow and meet the medical requirements of an increasing population and a diversified economy. The Association must have vision and concept of this medical need and be able to offer it, else the ever-present proponents of socialized and state medicine rush in with plans that would smother the present ideal doctor-patient relationship.

This presentation itself will not answer the questions, but it could be a basis for further evaluation and help in our future guidance.

According to the History of the South Carolina Medical Association, edited by Dr. J. I. Waring, the first graduating class of the Medical College of South Carolina was in 1825. By the end of the first twenty-five years of the school, or approximately 100 years ago, 1273 medical students had graduated, which is about fifty a year. Others had received their diplomas from medical schools out of the State, and many continued to get their train-

ing solely by practicing two or three years with a licensed physician and then passing the State Board of Medical Examiners. At that time it was relatively easy to become a doctor, which, in part, may account for the large number and inadequately trained doctors of the earlier period. About 1887 the Medical Practice Act was altered to require a medical diploma before becoming eligible for Board Examination.

By 1900 the requirements for entrance into the Medical College had risen and medical training vastly improved, with a reduction of approximately 50% in the number of practicing physicians, although the State's population had risen to 1,340,316.

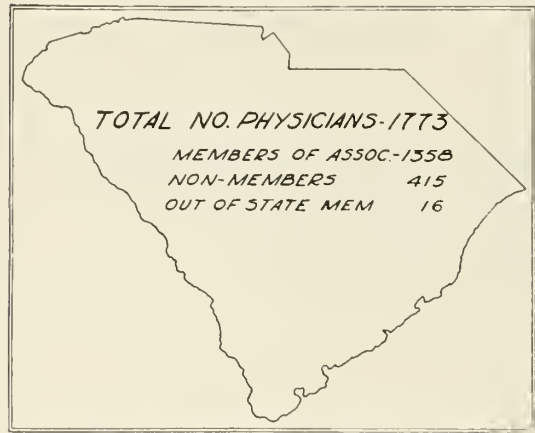
The population of South Carolina was 668,507 in 1850, and in 1852 the estimated number of doctors was between 900 and 1000, or about one doctor to every 650 persons. Some fifty years later, namely, 1906, the doctor population had shrunk to 587, and the State's population had grown to 1,340,316, with one doctor to every 2280 persons.

In presenting statistics of doctors and population, it is realized that figures are subject to variabilities beyond control. The figures have been checked as closely as possible with available 1955 data. It is believed that they are quite representative of existing conditions. The current figures about the South Carolina doctors were obtained through the Executive Secretary's office in Florence and through courtesy of the State Board of Health.

\*Presidential address, given at Myrtle Beach, May 17, 1956.

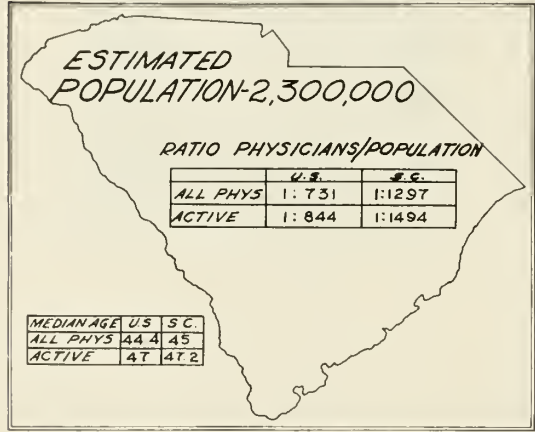
The 1955 statistics show a total of 1773 doctors in the State. (table 1) The Association

TABLE 1



has 1358 members in good standing. Of these, 134 are classified as Honorary (members in good standing who have practiced for forty consecutive years in the State), 55 Retired (presumably practice little), 29 in Military Service, and 16 are temporarily out of the State. These comprise a group of 234, leaving 1539 physicians in the State, in full time active practice, for the State's currently estimated population of 2,300,000, or a ratio of one doctor to every 1494 persons, or using the all doctor number—1773, the ratio is 1:1297. (table 2)

TABLE 2



By referring to AMA Bulletin No. 94, 1954, the following is noted: The 1950 ratio of all physicians in the United States is one to 731 persons, and of actively practicing physicians one to 844 persons. The median age of all

doctors in the United States is 44.4 years, and of doctors in active practice 47 years. The corresponding figures for South Carolina are: all—45 years, and active—47.2 years. (table 2)

The doctors of the State comprise a group composed of general practitioners and many specialists. Where are the various kinds of doctors located? What is the number of general practitioners, and the kind and number of specialists? (table 3, 4, 5)

TABLE 5

Medical Administration	9
Anesthetists	16
Derm. & Syph.	14
Industrial Medicine	13
Internal Medicine	110
EENT	72
Orthopedists	28
Ob.-Gyn.	61
Pathologists	15
Pediatricians	69
Proctologists	4
Psychiatrists	31
Public Health	27
Radiologists	28
Surgeons	176
TBc	7
Urologists	33
Residents & Interns	174
(70) (104)	
General Practitioners	780
Unknown	106
Total	1773

The general practitioners of the United States comprise a group of 37.2%, and for South Carolina 45%. Full time specialists in the United States account for 27.8%, and in South Carolina 21.1%. Part-time specialists in South Carolina represent 11.7%. The remaining group of 22.2% is a miscellaneous group. An interesting group is the 44 women doctors. (table 6)

We shall now show where the physicians are located, and the doctor-population ratio in the 9 Medical Districts, with an estimated 1955 population.

TABLE 3

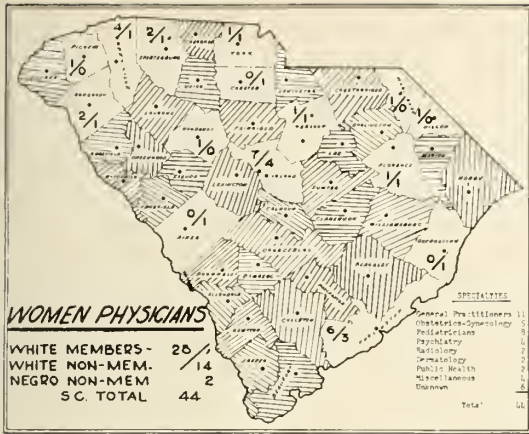
DISTRIBUTION OF PHYSICIANS IN SOUTH CAROLINA

County	Non Association Members				Medical Association Members							
	Total M.D.s in	W	N	Unk.	Total	W	N	Out of S. C	Total	Honorary	Ret.	In Service
Abbeville	12	4	0	0	4	8	0	1	9	1	0	0
Aiken	38	11	0	1	12	26	0	0	26	3	3	0
Allendale	5	1	0	0	1	4	0	0	4	1	0	0
Anderson	81	4	1	0	5	74	2	0	76	10	4	2
Bamberg	13	1	0	1	2	11	0	0	11	0	0	0
Barnwell	13	2	1	0	3	10	0	0	10	0	0	0
Beaufort	14	2	2	0	4	10	0	0	10	1	2	0
Berkeley	10	2	1	0	3	7	0	0	7	1	0	0
Calhoun	6	0	0	0	0	6	0	0	6	2	0	0
Charleston	281	96	2	0	98	178	5	4	187	20	8	8
Cherokee	12	1	0	0	1	10	1	0	11	1	0	0
Chester	18	3	0	0	3	14	1	1	16	3	1	2
Chesterfield	13	1	0	0	1	12	0	0	12	2	0	1
Clarendon	7	0	0	0	0	7	0	0	7	3	2	0
Colleton	19	7	0	0	7	12	0	0	12	2	0	0
Darlington	24	7	1	0	8	16	0	0	16	4	1	0
Dillon	14	4	1	0	5	9	0	0	9	0	1	0
Dorchester	10	3	0	0	3	7	0	0	7	0	0	1
Edgefield	10	2	0	0	2	8	0	0	8	1	0	0
Fairfield	7	2	0	0	2	5	0	0	5	0	0	0
Florence	73	14	7	0	21	52	0	2	54	2	1	1
Georgetown	17	4	2	0	6	11	0	0	11	1	0	0
Greenville	192	30	1	0	31	158	3	2	163	15	7	4
Greenwood	42	2	2	0	4	38	0	0	38	3	1	0
Hampton	11	1	0	0	1	10	0	0	10	0	0	0
Horry	38	12	0	0	12	26	0	0	26	1	0	0
Jasper	4	1	0	0	1	3	0	0	3	0	0	0
Kershaw	26	6	2	0	8	18	0	0	18	1	1	0
Lancaster	12	1	1	0	1	11	0	1	12	0	0	0
Laurens	24	2	1	1	4	20	0	0	20	4	3	0
Lee	7	2	0	0	2	5	0	0	5	0	0	0
Lexington	17	1	0	0	1	16	0	0	16	4	2	0
McCormick	1	0	0	0	0	1	0	0	1	0	0	0
Marion	26	3	2	1	6	20	0	0	20	2	1	1
Marlboro	16	3	0	0	3	13	0	0	13	1	0	1
Newberry	22	2	0	0	2	20	0	1	21	2	1	1
Oconee	22	2	1	0	3	18	1	0	19	1	0	0
Orangeburg	43	5	2	0	7	36	0	0	36	4	1	1
Pickens	24	3	0	0	3	21	0	0	21	4	2	0
Richland	296	97	7	2	106	190	0	1	191	18	9	1
Saluda	4	0	0	0	0	4	0	0	4	0	0	0
Spartanburg	138	12	2	1	15	120	3	0	123	7	2	4
Sumter	38	2	3	0	5	33	0	0	33	5	1	1
Williamsburg	17	3	0	0	3	14	0	0	14	2	1	0
Union	12	1	0	0	1	10	1	2	13	2	0	0
York	44	3	2	0	5	39	0	1	40	0	0	0
Total	1773	364	44	7	415	1341	17	16	1374	134	55	29

TABLE 4 DISTRIBUTION OF PHYSICIANS IN SOUTH CAROLINA ACCORDING TO TYPE OF PRACTICE

County	Adm.	Anes.	Derm. Sph.	G.P.	Indu.	Int. Med.	EENT	Orth.	Ob. Gyn.	Path.	Ped.	Proc.	Psye.	Pub. H.	Rad.	Surg.	Thc	Urol.	Ret.	Unk.	Total
Abbeville				7		1								1		1				2	12
Aiken				15	10				2		2			1		2			3	3	38
Allendale				5																	5
Anderson	2			39		3	7	1	5	1	5			1	1	9		3	4		81
Bamberg				9			1							1		1				1	13
Barnwell				10												1		1		1	13
Beaufort				7										1		4			2		14
Berkeley				7										1		1			1		10
Calhoun				6																	6
Charleston	5	10	4	59	2	37	12	9	16	9	20		6	3	7	27	1	7	8	39	281
Cherokee				10												2					12
Chester				13										1		3			1		18
Chesterfield				13																	13
Clarendon				4												1			2		7
Colleton				16										1	1	1					19
Darlington				18		1	2							1		1			1		24
Dillon				10							1					1			1		14
Dorchester				10																	10
Edgefield				7					1					1						1	10
Fairfield				5										1		1					7
Florence			1	33		8	6	3	2		3			1	2	6	1	2	1	4	73
Georgetown				12							1				1	2				1	17
Greenville	3		3	76		15	10	4	9	1	11	2	3	1	4	21	1	5	7	16	192
Greenwood				17		3	3	1	4	1	2				1	4		2	1	3	42
Hampton				10												1					11
Horry				21		4	2		1		2			1	3	4					38
Jasper				4																	4
Kershaw				17		2					2					3			1	1	26
Lancaster				10												2					12
Laurens	2			17												1			3	1	24
Lee				5										1		1					7
Lexington				13		1								1					2		17
McCormick				1																	1
Marion				15		1								1		6			1	2	26
Marlboro				11		2										3					16
Newberry				12		2					1			1		3			2		22
Oconee				18										1		2			1		22
Orangeburg	2			22		3	2		2		2			1	1	3		2	1	2	43
Pickens				17			1							1		1			2		24
Richland	1	2	5	56	1	24	12	9	14	2	11	1	22	10	5	29	4	7	9	72	296
Saluda				4																	4
Spartanburg	2	1		59		11	6	3	8	1	6	1	1	2	3	20		4	2	8	138
Sumter	1			14		2	4		3		2			1	1	8		1	1		38
Williamsburg				12		1	1							1					1	1	17
Union	1			10		1															12
York				24		3	2		2		2				1	8		1		1	44
Total	9	22	14	780	13	125	72	30	69	15	73	4	32	38	31	184	7	35	56	164	1773

TABLE 6



It is believed by some that there are more doctors in the Piedmont than in other parts of the State. The figures appear as follows: The Piedmont area, comprising seventeen counties in the northwest part of the State, has 665 doctors and a population of 931,600, which gives approximately one doctor for every 1400 persons. The remaining part of the State is divided into the Pee Dee and Coastal sections. The Pee Dee has 624 physicians and a population of 789,162, or a physician-population ratio of 1:1265. The Coastal area has 484 physicians and a population of 579,238, or a physician-population of 1:1196.

There is a group of counties with less than

ten doctors each, namely: Calhoun 6, McCormick 1, Jasper 4, Saluda 4, Allendale 5, Clarendon 7, Fairfield 7, Lee 7. The Negro population of these counties exceeds or approximates the white. The medical care in these counties is augmented from the surrounding counties. Similar situations exist in other states besides South Carolina.

Looking at the entire picture, South Carolina is below the national average in the number of physicians to population. It is evident that South Carolina's population is increasing rapidly. The officials of the Medical College of South Carolina wisely foresaw this doctor need and the legislature rightly provided the necessary funds to improve and increase the Medical College facilities, so that 80 doctors can now be graduated a year. This number is now considered ample for the State's needs.

Negro doctors comprise a group of 17 members, and 44 non-members, 3 of which are women. The following table shows the first 4 members came from Charleston in 1952, and then the following year one more from Charleston, one from Chester, 3 from Greenville, and 2 from Spartanburg. In 1954 one came from Cherokee, and one from Union. In 1955 2 came from Anderson, 1 from Oconee, and 1 from Spartanburg.

TABLE 7

Medical District No.	Composed of	Population (1955)	No. Doctors (1955)	Ratio
1	Charleston, Colleton, Jasper, Dorchester, Berkeley, Beaufort counties	298,680	338	1:880+
2	Edgefield, Aiken, Lexington, Richland, Saluda	285,995	365	1:783+
3	Laurens, Newberry, Greenwood, Abbeville, McCormick	160,245	101	1:1586+
4	Anderson, Greenville, Oconee, Pickens	354,989	319	1:1112+
5	Chester, Kershaw, Lancaster, York, Fairfield	205,205	107	1:1918
6	Florence, Darlington, Chesterfield, Marlboro, Dillon, Marion, Horry	337,628	204	1:1165
7	Clarendon, Georgetown, Lee, Sumter, Williamsburg	198,082	86	1:2300—
8	Allendale, Bamberg, Barnwell, Calhoun, Hampton, Orangeburg	155,794	91	1:1712
9	Spartanburg, Union, Cherokee	227,682	162	1:1404

TABLE 8

County	1952	1953	1954	1955	Totals
Anderson				2	2
Charleston	4	1			5
Cherokee			1		1
Chester		1			1
Greenville		3			3
Oconee				1	1
Spartanburg		2		1	3
Union			1		1
Total Negro Members					17

The Negro group of 61 doctors accounts for less than 3.5% of the profession, while the Negro population is about 40%.

The Negroes, as a whole, reside primarily in the sandhills and coastal sections, while most of the Negro doctors are in the Piedmont and industrial sections. There is not a Negro doctor in Clarendon County or in 21 other counties.

There are, on an average, up to 6 Negro doctors that take the State Board of Medical Examination per year, and generally, they all pass. Of those practicing, one is a Board man in ophthalmology practicing in Columbia.

A hundred years ago the profession was made up 100% of general practitioners. As the percentage of general practitioners went down and the percentage of specialists rose, there was a corresponding deterioration in public relations; not that medicine was poorer thereby, but the public lost something that was dear to it.

The public relations in South Carolina are better than the national public relations. The percentage of general practitioners in South Carolina is higher than the national percentage. I expect, if the national percentage of general practitioners were higher, the public relations would be smoother.

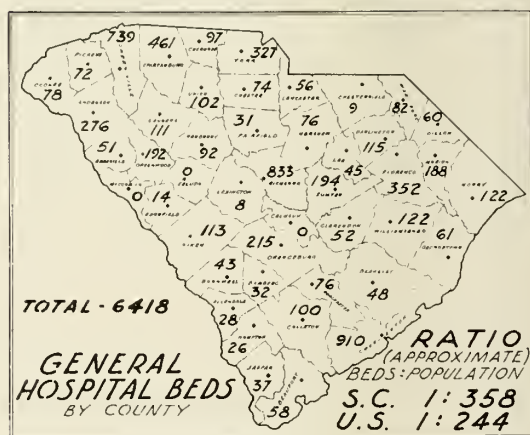
The distribution of physicians is frequently discussed by various agencies, pointing out the trend of physicians to locate in cities rather than rural areas. This actually is not too serious or too unexpected. The doctor of today is highly trained in treatment and diagnosis, and is dependent upon the laboratory, x-ray, and hospital for proper medical or surgical management of the patient. To locate in

a community without modern facilities is to deprive himself and his patient of the scientific aids he has been taught to utilize.

The patient's sickness, on the other hand, is seldom aggravated by going to the doctor's office or hospital, and in instances, the doctor, upon visiting the patient at home, can only recommend transfer to a center for appropriate treatment. As diagnostic centers and hospitals increase in our State, as they rapidly are, the public will become more accustomed and dependent on this modern trend of medical practice. The idea of doctors shunning the rural for community practice will become justified and reconciled.

At the present time there are 6418 general hospital beds in South Carolina, (table 9) exclusive of those for Tuberculosis and Mental and Nervous Diseases, and those on military installations and the Veterans' Administration.

TABLE 9



The hospitals are scattered over the State except that Calhoun, McCormick, and Saluda counties have none. Health Centers and Auxiliary Units are in every county. South Carolina population to general hospital bed is one bed to every 358 persons. The ratio for the United States is 1:244. The doctor in a center, provided with modern technical assistance, can care for many more patients and in a better way than ever before.

The graduate doctor of today, by clinical experience with patients while a medical student, and later as an intern and resident, has had training in various branches. This leads

me to believe that the physicians starting practice today are prepared, not only to do general practice, but also to provide specialized treatment in certain conditions. Those rarer and complicated conditions requiring highly specialized training and equipment are referred to specialists, thus utilizing the specialist effectively in his field.

This concept of practice places the general practitioner in an enviable position, gives him a broader field, and a more satisfactory relationship with the patient. Families have long desired one doctor who can treat the patient except for unusual conditions. The public's criticism of over-specialization should become less with more and better general practitioners. Instead of every intern and resident feeling he must avail himself of a particular specialty, let us encourage good preparation for general practice. The general practitioner is in a unique position for rendering the most service to the most patients. The profession needs them . . . The people want them . . . The medical schools and hospitals can provide them.

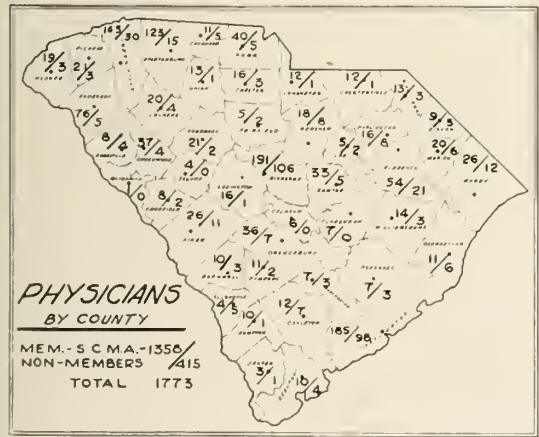
There are approximately 415 doctors in this State who are not members of the South Carolina Medical Association. (table 10) The

State Hospital, State Park Sanitarium, 25 as interns and residents, 7 Negroes, leaving a group of 21 doctors unclassified except as non-members. Aiken county has 11 white non-members, Edgefield 2, Lexington 1. The next largest group of 116 is in District No. 1. Charleston county accounts for 98 of them, Colleton 7, Jasper 1, Dorchester 3, Berkeley 3, and Beaufort 4. Of this entire group, 5 are Negroes. Other counties showing a surprising number of non-members are: Florence 21, Greenville 30, Horry 12, Kershaw 8, and Spartanburg 15. The general picture of non-members in the cities with large membership is about the same as Richland's non-members. The hospital or institutional group accounts for many of the non-members. In other instances, careless or unsympathetic attitude about dues or, rarely, ineligibility may account for non-membership.

There is another large group of interns and residents. A few years ago the House of Delegates provided a special Junior Membership for them so that they would not be liable for regular dues, but pay only for the subscription price of *The Journal*. As far as I know, very few interns or residents have come into the Association by this route. I urge the component societies whose hospitals have interns and residents not only to provide the necessary change in their by-laws but also invite and urge these doctors to affiliate. I believe they will find affiliation with organized medicine invaluable even during hospital training or military service. A doctor is a better doctor when a member of the Association. However wholehearted a society's invitation may be to non-members, there is apt to be a feeling of hesitancy and less attendance at the scientific meetings.

How can an appeal be made to the non-members, and what ways can be made for them to become members? In instances, the amount of dues may be a deterring factor. County, State, and AMA dues in this state may run from \$50.00 to \$100.00 or more a year. It is regrettable that dues may keep some men out of organized medicine. The dues are tax deductible and are not as much as they

TABLE 10



largest group of 120 is found in District No. 2, consisting of Edgefield, Aiken, Lexington, Richland, and Saluda counties. The first question that comes to mind is: Why are they not members? An analysis of available statistics of Richland county shows that the non-member group of 106 consists of 40 doctors in institutional work as the Veterans' Administration,

seem on the surface. No doubt, there are those whose expenses do not encourage this expenditure for membership. In other instances, it may be thoughtlessness on the part of the non-member, or societies may be negligent in not meeting the problem of the individual who wants to carry his part or is shy about seeking membership. I suggest that the county societies make a careful study of this problem. Perhaps a more elastic or graduated scale of dues could be adopted. I suppose that the percentage of non-members in our state is not higher than the national average, but no figures are available. Could a goal be set that every eligible doctor become a member? It is up to each county to survey its doctor population and help each eligible doctor become a member.

Every physician owes a debt to the profession past and present. No doctor today, whether his medical education was financed by the government or by private means, can escape his obligation to organized medicine. Medical history shows how the profession has constantly striven for the highest standards of medical education, urged and helped medical colleges to maintain class "A" standards. Physicians have given freely of their time in teaching students in the classroom and clinic. Actually, the efforts and insight of our predecessors made modern medical education possible. Medical societies are conscious of their responsibility of safeguarding and advancing the practice of medicine and keeping their members posted on the best medical procedures.

In conclusion, I have tried to picture the doctor potential in South Carolina, where our strength is, and where our weakness is. The non-member group of 415 appears too large. Approximately one doctor in 4-1/2 is a non-member. South Carolina has one physician for approximately 1300 persons. The nation,

as a whole, has one physician to every 731 persons. The South Carolina physician requirement probably lies between these figures. More doctors are needed in our State. However, no crisis exists, and the physician deficit is becoming less. Our resident-intern pool is substantial. As industry expands, additional needs will develop. The general hospital bed ratio to population is low but constantly improving. The medical care in our State is excellent. Numbers alone do not insure adequate care. Where shortages of physicians occur, we find the local physician extending himself. South Carolina has fewer doctors and older doctors. South Carolina doctors work harder and over a longer span of years than the average in the United States. Physicians are invaluable citizens, and cannot be easily replaced. Better public relations, better patient's-understanding, and better distribution of doctors will help. But it is by graduating sufficient number of doctors that shortages will be overcome. South Carolina has a good proportion of accredited specialists. I believe the shortage of physicians in our state could best be filled by general practitioners. The general practitioners have an unusual opportunity to foster smoother public relations.

Hospitals and health centers are rapidly developing in many areas, making practice in these localities more inviting and enabling the doctor to give better care to the patient.

South Carolina has every reason to be proud of her doctors, who they are, and what they are doing. We look forward with eagerness, believing confidently that new scientific advances will solve many of today's perplexing problems.

May we continue to carry on in the spirit of the motto of the South Carolina Medical Association—with Virtue, Honor, Wisdom, and Humility.



# SURGERY FOR CHRONIC ARTERIAL INSUFFICIENCY OF LOWER EXTREMITIES

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Augusta, Georgia

Along with the continually increasing life expectancy, there is a greater incidence of those degenerative diseases commonly seen in elderly people, including chronic arterial insufficiency of the lower extremities. Fortunately, advances are being made in the surgical treatment of arterial insufficiency which brightens the outlook for those suffering with this difficulty.

Many different ideas and new procedures are being used experimentally and clinically by many workers in this field. The sometimes conflicting reports from the different investigators are at present based on relatively short term results and the conclusions drawn now may have to be altered when the procedures are re-evaluated after long term observation. Although many of the controversial points may not be solved for many years, the main principles have already been so well established that these new procedures warrant careful consideration in the management of those with chronic arterial insufficiency. It is hoped that this report will emphasize that much can now be done for those with chronic arterial insufficiency, even though many of the procedures are new and many of the problems are still unsolved.

## Pathology—

The cause of chronic arterial insufficiency in the elderly is usually arteriosclerosis, which occurs earlier and more commonly in diabetics than non-diabetics. Thrombo-angiitis obliterans (Buerger's disease) and the LeRiche syndrome<sup>1</sup> are more frequently responsible in younger males. LeRiche Syndrome (easy fatigue of lower limbs, impotency and absent femoral pulsations) is characterized by segmental occlusion of the terminal aorta usually

involving the iliac arteries. More peripherally, segmental occlusions are seen, not uncommonly in the earlier stages of arteriosclerosis, although in the late stages the arterial changes are usually extensive and diffuse. Only by making arteriograms fairly routinely in such patients can those with segmental occlusions be found and selected for direct vessel surgery. In those with segmental occlusions, although it is to be expected that the less involved portions of arteries will become more diseased and perhaps even become occluded, great benefit results from restoring surgically the blood flow through or around the segmentally occluded area.

## Indications for Elective Surgery—

Certainly not all patients with diminished arterial blood supply to their lower extremities require or warrant operative treatment. Most are quite elderly and relatively asymptomatic and are likely to die of some other degenerative or malignant disease before getting into serious difficulty with the lower extremities. Probably of greater overall importance than any specific type of surgery in the treatment of these patients is the institution of good general hygiene and proper local foot care. These measures may prevent the minor infections and abrasions which so often convert a mildly ischemic, and even asymptomatic limb into an immediate threat to life. This is especially true in patients with diabetes.

In deciding on the advisability of surgery for any particular patient, one must consider not only the type of pathological change present but also whether or not any presently available procedure is effective in treating that type of disease. A 60 year old male may have very severe arteriosclerosis, diffusely involving an extremity and producing ischemic neuritis and "rest pains". There is no doubt that such an

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individual sorely needs something to improve the flow of blood in his extremity, but experience has shown that no surgical procedure will produce enough benefit to prevent the need of amputation. In such an instance then, the logical treatment is primary amputation rather than one of the procedures to improve the blood supply. Or, a 50 year old person with few symptoms may have a segmental occlusion which can be by-passed with the prospect of getting very good results. Surgery is probably advisable for such an individual, even though the symptoms may be minor, because it is highly successful for the type of disease present.

Generalizations are dangerous and the decision as to whether surgery may be indicated can be made best after considering all the pros and cons in each individual patient. However, most authorities would agree that surgery should be seriously considered for those with arterial insufficiency severe enough to produce symptoms, in whom operation is not contraindicated because of coexistent disease or extreme old age, and in whom the type of pathological change present is such that some form of surgical procedure would be likely to cause improvement.

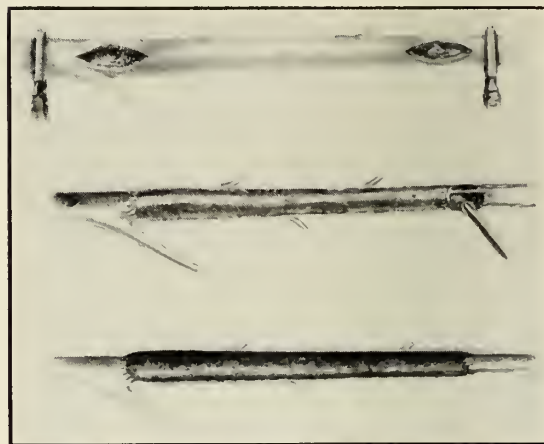
#### Operative Measures to be Considered—

Those procedures aimed at improving the blood supply and saving the extremity (with which this report is primarily concerned) may be considered in two general categories: (1) The direct vascular approach and (2) The approach through the sympathetic nervous system. The direct vascular approach consists of re-establishing patent conduits through or about an occluded segment of artery by any one of a number of methods. The sympathetic nervous system approach is based largely on the effect of sympathectomy on the development of collateral pathways.

#### Means of Re-establishing Main Arterial Channels—

Three methods by which blood flow can be re-established to the area beyond an occluded arterial segment are: (1) thromboendarterectomy; (2) excision and replacement by graft or prosthesis; and (3) by-passing with graft or prosthesis.

1. Thromboendarterectomy consists of removing the occluding, organized thrombus with the attached intima and adjacent vessel wall, leaving a new lumen with a relatively smooth surface. The technique is demonstrated in Figure 1. It is necessary to suture the intima



*Figure 1. Technique of Thromboendarterectomy. The upper drawing illustrates the two small incisions through which the procedure is performed. The middle and lower drawings are longitudinal sections of the artery, the middle figure showing a wire loop being used to separate the thrombus with attached intima and adjacent tissue from the remaining portion of the vessel, and the lower drawing illustrating a method of attaching the intima at the limits of the dissection to the vessel wall.*

to the vessel wall, both proximally and distally at the points where the dissection was stopped. Essential for the success of this procedure is the presence of a good vessel distally through which blood can flow freely, otherwise the vessel will promptly become occluded by thrombus. Heparin is started during the operation and continued for a few days postoperatively. We have used the Mayo extraluminal vein stripper to "ream-out" the vessel without great success, but Cannon and Barker<sup>2</sup> report excellent results with a similar but more refined technique, with a low incidence of subsequent re-occlusion.

2. Excision and replacement by graft or prosthesis.

In this method the occluded segment of artery is excised up to, and down to, relatively good artery and the blood flow is re-established by anastomosis with a suitable length of vessel or plastic prosthesis. This method is usually less difficult technically than that of thromboendarterectomy and is less prone to lead to



Figure II. After excising the segment between the dotted lines in the upper drawing, an alcohol-preserved homograft is being inserted into place below. A continuous over and over stitch is shown which should be of arterial silk, size 5-0 or 6-0, with a swaged-on atraumatic needle.

early thrombosis. The disadvantage of the various forms of grafts and plastic prostheses being used will be considered later.

Figure II illustrates the insertion of an alcohol-stored homograft after excision of an occluded segment of artery.

### 3. By-passing by graft or prosthesis.

In the process of excising an occluded segment of artery with enough margin on each end to reach an arterial wall suitable to use for anastomosis, it is frequently necessary to sacrifice one or more rather important collateral vessels. Subsequently, if the graft or prosthesis becomes occluded, the patient has less blood supply to the extremity than he had originally. To obviate this hazard, and to simplify the operative procedure, a shunt can be established about the occluded segment by means of a suitable graft or prosthesis leaving the occluded segment undisturbed. Without dissecting extensively, the upper end of the graft or prosthesis is joined to the host's vessel above the point of obstruction by an end-to-side anastomosis, and the lower end is joined similarly to the host's vessel below the obstruction.<sup>3, 4</sup>

Figure III illustrates this technique.

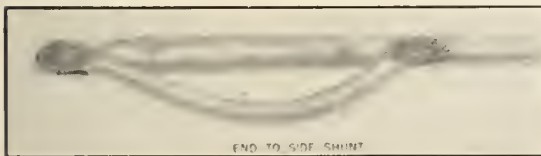


Figure III. A short shunt is illustrated here. Much longer occluded segments can be successfully bypassed with this technique.

### Choice of grafts or prostheses—

The most generally accepted grafts are arterial homografts and autologous vein grafts. The usefulness of autologous vein graft is quite limited since its dissection prolongs the procedure and it is not suited to long replacements because of the poor fit resulting from turning the vein around so that its valves do not impede blood flow. Vein grafts may also be more prone to late thrombosis than arterial homografts.

Arterial homografts serve effectively for some years, although they are ultimately replaced completely by the host's own tissues and the elastic fibers eventually disintegrate. The rather burdensome method of preservation by the "freeze-dried" technique has been a deterrent to their common usage. However, our experience, and that of others, with alcohol stored grafts has been good, indicating that the more troublesome techniques required with "freeze-dried" methods may not be necessary. The possibility that alcohol-stored homografts have less antigenicity than grafts stored by other methods is being investigated in our laboratory. If the antigenic properties of heterografts can be destroyed in this manner, heterografts might be safely used. If by this or some other method, heterografts could be so altered that they serve as well as homografts, then the present difficulty of maintaining an adequate supply of grafts would be largely overcome.

Since the homografts are eventually completely replaced by the host's tissue, it would not be surprising to find at some future date, an aneurysmal dilatation at the site of graft in the aorta which might require removal.<sup>5</sup> A discouragingly high late thrombosis rate has been noted in homografts when used to replace smaller arteries.<sup>6</sup>

Plastic fabrics have been used as substitutes for the large vessels<sup>7</sup> because of the uncertainty of the long term results of homografts, and because of the difficulties in securing and storing adequate supplies of homografts. Technically, the various forms of plastics have worked well. They are relatively easy to construct in the desired shapes and

sizes. A large assortment of shapes and sizes can be kept indefinitely and always available. Or they can be tailored to fit at the time of surgery, as demonstrated by Poth.<sup>8</sup> However, the ultimate fate of the various plastic substances when embedded within the body is uncertain. We have shown that some of them lose strength rapidly when embedded in the tissues of the dog. Poth has substantiated this in regard to nylon. Our unpublished results indicate that nylon, orlon and fortisan, as well as the natural fibers, silk and cotton, lose strength rapidly and are unsuitable because of this for use as substitutes for vessels. Vinyon "N" and dacron have to date shown little, if any, loss of strength.

It seems reasonable to assume that without the added support of elastic fibers or the plastic fibers of the prosthesis, fibrous tissue structures will be unable to withstand indefinitely the arterial pressure and pulsations to which arterial walls are continually subjected.

Promotion of development of collateral vessels—

Sympathectomy is probably the only practical surgical procedure which promotes the development of collateral vessels to an ischemic part. By releasing the smaller arteries and arterioles from the sympathetic impulses, it improves the blood supply to the extremity, particularly to the skin and, at least in some instances, to the deep tissues. Since sympathectomy stops sweating, the extremity becomes warmer due both to the improved circulation and to the absence of the cooling effect of evaporating sweat. Infections are made less likely because the common fungus infections of the foot, which frequently provide the avenue through which bacteria penetrate the protective covering of the skin, are favorably influenced by the dryness resulting from sympathectomy. Through this same mechanism, sympathectomy may be doubly valuable in patients with Buerger's disease.

Sympathectomy should be considered for those who warrant a surgical procedure to improve their circulation but who do not have a type of localized arterial occlusion which

may be effectively treated by direct vessel surgery.

We no longer use routinely the preoperative test of blocking the sympathetic ganglia with procaine, since many patients who do not have a good response to the test will have a good result from sympathectomy.

The type of sympathectomy preferred is a unilateral lumbar sympathectomy, L1 through L4 or L5 inclusive. The extent is frequently limited to L2 through L4 because of the technical difficulty of removing the first lumbar ganglion, unless the removal of the first ganglion is thought to be specifically indicated by evidence of a high femoral occlusion. When the occlusion involves the iliac and lower aortic areas and is not amenable to direct vessel surgery, Grimson's suggestion<sup>9</sup> of extending the sympathectomy up to D8 or D9 has been utilized with very encouraging results.

In general, a unilateral sympathectomy is preferred if the symptoms are confined to one side or if the condition of one extremity is precarious. Unless contraindicated for medical reasons, a bilateral sympathectomy is performed if the symptoms are bilateral and there is no impending gangrene.

Sympathectomy is offered more freely for the diabetic than the non-diabetic. The diabetic is more prone to sudden catastrophe in an asymptomatic extremity due to his greater susceptibility to infection. It is not unusual to see a diabetic with good pulsations in the foot vessels, develop gangrene of a toe secondary to a minor abrasion or infection. The added benefit of a dry foot, which discourages epidermophytosis, is particularly valuable here. For these reasons, sympathectomy is usually bilateral for those who are diabetic, even though symptoms are present only unilaterally, unless contraindicated by the patient's general condition or by a very precarious condition of one extremity.

Our results from sympathectomy in those who enter with gangrene of one or two toes are considerably better in diabetics than in non-diabetics, in that we are more often able to prevent a major amputation.

Contraindications to sympathectomy—

Sympathectomy is contraindicated if there is little to gain from it and if, because of advanced coexistent disease, it imposes a considerable and greater risk than will be offset by its possible benefits. Although a lumbar sympathectomy is easy to perform and carries little risk either in morbidity or mortality,<sup>10</sup> it should be advised only rarely in those who are such poor risks that the mere prolongation of their hospital stay is apt to provide the time necessary for the development of more severe renal, cerebral, cardiac or pulmonary disease. If gangrene is already so extensive that a major amputation is necessary regardless of the possible benefits of sympathectomy, then it is better as a rule to proceed directly with the indicated amputation.

#### Summary

Conservative measures, particularly good local care of the feet, will often prevent the catastrophies which are prone to occur in those with arterial insufficiency of the lower extremities.

The currently used methods of restoring the arterial blood flow to lower extremities are briefly reviewed. A prerequisite for any of the methods of direct vessel surgery to be successful is a sufficiently good arterial tree distally to allow a fairly good flow of blood. This necessity limits the applicability of direct ves-

sel surgery and makes it necessary to resort to sympathectomy in many instances.

Longer periods of observation and more experimental work will be required before it will be possible to determine which of the presently available replacements for vessels is best from all standpoints.

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# CHEMICAL TREATMENT OF GASTROINTESTINAL CANCER

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Cancer of the digestive tract is responsible for forty per cent of the cancer deaths in the United States each year. Efforts to control malignant tumors of the gastrointestinal tract in experimental animals have met with little success.<sup>20</sup> The present paper presents clinical studies with a score of agents in the search for some management of these neoplasms.

*Chymotrypsin.* Parenteral injections of this enzyme were without effect on adenocarcinoma of the stomach.<sup>22</sup>

*Dichloroaminopterin.* Branche, and associates,<sup>3</sup> reported no clinical benefits from the use of this drug on 10 patients with gastrointestinal cancer.

*Polyden.* Polyden therapy exerted little influence on carcinoma of the stomach.<sup>8</sup>

*Krebiozen.* The Council on Pharmacy and Chemistry of the AMA reported this agent failed to give any objective evidence of improvement in 21 patients with gastrointestinal tumors.<sup>4</sup>

*ACTH.* Wright, et al,<sup>27</sup> found this hormone was without significant value in altering the course of carcinoma of the digestive tract, and Postlethwait, et al,<sup>17</sup> reported no subjective or objective improvement in 6 patients with stomach carcinoma after ACTH therapy.

*Cortisone.* The latter group of investigators reported cortisone produced no improvement in patients with advanced carcinoma of the digestive tract, but Raab and Gerber<sup>18</sup> noted improved mental state, better nutrition and less pain in patients with carcinoma of the colon and pancreas after cortisone and ACTH therapy.

*Viruses.* Southam, and associates,<sup>14, 23</sup> found no gross or microscopic morphological change attributable to any of 11 viruses

inoculated into patients with adenocarcinoma of the stomach and rectum. Later Southam and Moore<sup>24, 25</sup> described some regression of adenocarcinoma and adenoma of the gastrointestinal tract in patients injected with Egypt 101 virus.

*Radioisotopes.* Radiogold intracavitary therapy of patients with neoplasms of the stomach resulted in superficial damage only to tumors, as determined by autopsy.<sup>10</sup> Mottsford, et al,<sup>2</sup> recorded hypoplasia of bone marrow in patients treated with Au<sup>198</sup> for stomach cancer. Abdominal cancer responded little to radioactive phosphorus,<sup>19</sup> and tumors of the digestive tract were largely resistant to radiocobalt treatments.<sup>5</sup>

*Aureomyein.* A combination of parenteral aureomycin and irradiation in far advanced carcinoma of the large intestine resulted in some clinical improvement.<sup>1</sup>

*Teropterin.* Weintraub, et al,<sup>26</sup> described subjective improvement in 55 percent of the cases of advanced carcinoma of the stomach, lungs, breast, etc., following teropterin treatments, but they discovered no objective evidence of improvement.

*Colchine.* Eichler<sup>6</sup> obtained some palliation with colchine therapy on patients with inoperable stomach cancer.

*Mercurized Indigo.* Gorc<sup>7</sup> reported increased survival rates for patients with adenocarcinoma of the lower bowel who received intravenous injections of mercurized indigo.

*TEM.* Lenti and Gavosto<sup>11</sup> secured some improvement with triethylene melamine therapy of gastric carcinoma, but Wright, et al,<sup>28</sup> observed little improvement in patients with stomach adenocarcinoma.

*Citronellal and Nitromin.* Osato, et al,<sup>15, 16</sup> prolonged the lives of patients with cancer of the stomach by administration of citronellal,

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citral and the n-oxide of nitrogen mustard.

*Liver Extracts.* Maier-Bosse<sup>12</sup> recorded some improvement in patients with stomach carcinoma, following the use of liver extracts.

*Vitamins.* Massive doses of vitamins A and C induced some palliation in patients with gastrointestinal neoplasms.<sup>21</sup>

*Phenol and Hypophyseal.* Injections of phenol in glycerine or propylene glycol,<sup>13</sup> and hypophyseal implants<sup>9</sup> have been used to relieve chronic pain in carcinoma of the stomach.

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*Primary Carcinoma of Bartholin's Glands.* Edward J. Dennis, III, Lawrence L. Hester, Jr., and Lester A. Wilson, Charleston. Obstetrics & Gynecology. 6:291-296, September 1955.

Primary carcinoma of Bartholin's gland comprises 3 per cent of malignant growths of the vulva. The case reported is the 114th case in the literature and the first reported during pregnancy.

Epidermoid carcinoma and adenocarcinoma comprise the predominant cell type. Presenting symptoms in order of frequency are unilateral vulval mass, pain and tenderness, dyspareunia, abscess and draining sinuses, and pruritus vulvae.

Adequate therapy includes radical vulvectomy with bilateral radical groin dissection. Prognosis is poor as statistics on survival indicate a poor five year survival. Of the cases reported, there were only 9 five year survivals. Adequate surgery will undoubtedly increase the five year survivals.

*Giant-Cell Tumor of the Pelvis at the Acetabulum, Ilium, Ischium, and Pubis.* G. R. Dawson, Jr., M. D., Florence. J. Bone & Joint Surg. 37-a: 1278-1280, Dec. 1955.

This is believed to be the first case of aneurysmal bone cyst of the pelvis at the acetabulum reported in the literature (aneurysmal bone cyst was formerly included in that large waste basket classification of giant-cell tumor). The destruction of bone extended

down to the acetabular cartilage, and the continuous wall of the lesion extended to the mid-line. At operation, the lesion was curetted and was packed with small one-fourth inch bone chips obtained by removing a good portion of the iliac wing. The bony lesion and cyst wall healed as a solid bony mass. The patient walked with a limp. Four years later, the patient became pregnant. A cesarean section was done as the healed bony mass extended to the pelvic mid-line and blocked the pelvic outlet.

*Pelvic Plastic Repair—Indications and Results.* Wilson, J. M. (Charleston) Am. J. Obst. & Gynec. 70: 1219-1224, Dec. 1955.

Sixty-nine patients treated surgically for prolapse, cystocele, rectocele, enterocele and stress urinary incontinence were followed up to 7 years. The procedures performed were vaginal hysterectomy or colpocleisis or both.

There were no deaths. There were ten operative complications, none serious. Post-operative complications were largely urinary tract infections, none serious. Previous pelvic surgery including ventro-fixation, was not thought to be a contraindication to the vaginal approach.

There were 5 symptomatic recurrences (all within the first year) with the patient dissatisfied.

It is thought that the procedures carry moderate risk but that the end results justify this.



# PECTUS EXCAVATUM

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**P**ectus excavatum or severe "funnel breast" can be a quite disabling as well as a disfiguring condition. The malplacement of the lower part of the sternum back to the region of the vertebral column displaces the heart to one side with sometimes serious effects. A paradoxical inward motion of the lower sternum develops producing a paradoxical respiration. As the child grows, the extreme limitation of chest expansion produces other skeletal abnormalities.

The technique of correction was standardized by Ravitch.<sup>1</sup> The correction is accomplished by removing all of the costal cartilages in the region of the defect, detaching the xiphoid process from the sternum, and cutting all of the attachments of the sternum up to the third interspace. A transverse sternotomy is done through the anterior cortex, correcting the posterior displacement.

Controlled positive pressure endotracheal

anesthesia is essential and makes the procedure possible.

*Case Report:* Spartanburg General Hospital No. 86726. A 12 months old white male was admitted to the Spartanburg General Hospital on Jan. 30, 1955 with a severe pectus excavatum. Paradoxical respiration was present. The heart was displaced to the left side of the chest.

On Feb. 1, 1955 operation was done. Anesthesia was endotracheal ether by a non-rebreathing technique with a Slater-Stephen valve by Dr. Charles H. Pool. A mid-line incision was made from the suprasternal notch to the epigastrium. The sternum and deformed costal cartilages were exposed. All of the cartilages in the region of the defect were removed. (Fig. 1)

The xiphoid process was detached from the sternum and excised. The recti muscles were allowed to retract. A transverse sternotomy was done. (Fig. 2). and the sternum elevated anteriorly, over-correcting the

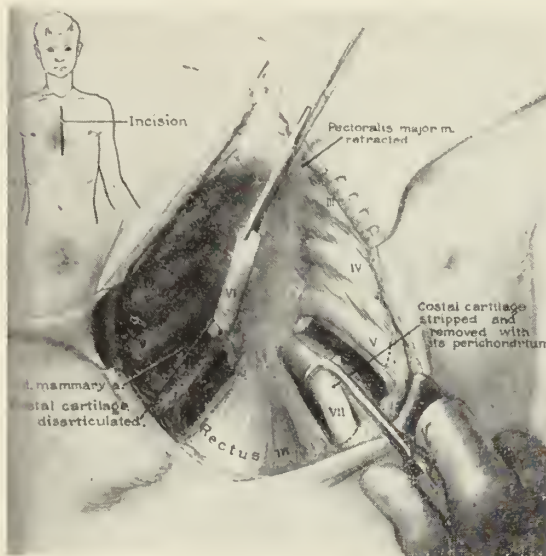


FIGURE 1

From *ANNALS OF SURGERY* 129:429 (April 1949)

From the Departments of Surgery and Pediatrics, Spartanburg General Hospital, Spartanburg, S. C.

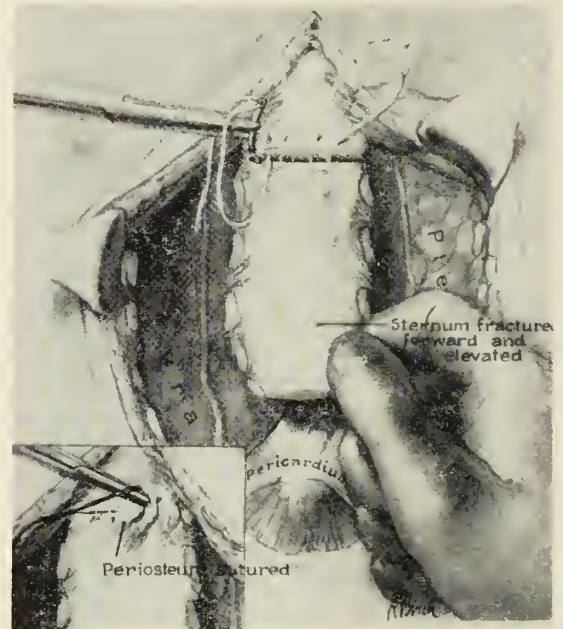


FIGURE II

From *ANNALS OF SURGERY* 129:429 (April 1949)

defect. The anterior cortex of the sternum was sutured along with the periosteum with interrupted cotton sutures. The pectoralis major muscles were reattached to the sternum.

The post-operative course was uneventful and an excellent cosmetic and functional result was obtained. (Fig. 3).

**DISCUSSION:** The technique as evolved by Ravitch<sup>1</sup> was closely followed. In this case it was more convenient to remove the xiphoid cartilage rather than detach it and allow it to retract downward to the mid-portion of the epigastrium.

In Ravitch's original report and in this case, no particular attempt was made to preserve the perichondrium. In a later presentation,<sup>2</sup> Ravitch mentioned that the perichondrium can be preserved with surprising ease and an earlier post-operative stabilization of the chest wall results.

**SUMMARY:** Pectus excavatum can be a disabling condition. It is correctable by a logical orderly operative technique. An illustrative case is presented.

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FIGURE III  
Post-operative Result

*Vitiligo and Pernicious Anemia.* Allison, J. R. and Curtis, A. C. *Arch. Dermat. and Syph.* 72: 407-408, November 1955.

A statistical analysis 801,678 admissions to the University of Michigan Hospital was done to substantiate the suspicion that pernicious anemia was not uncommon in patients with vitiligo. There were twenty-two patients with the combined diagnosis of pernicious anemia and vitiligo in this survey, whereas the calculated theoretical occurrence of the combined diagnosis was less than one case. 4.1 per cent of the cases with vitiligo had pernicious anemia. Only 1.6 per cent of the patients with pernicious anemia had vitiligo. This lends credence to the clinical observation that pernicious anemia occurs more frequently in patients with vitiligo than should normally be expected.

*Simultaneous Occurrence of Duodenal and Gastric Ulcer during Therapy with ACTH. A report of two cases.* Baroddy, W. G., and Shugart, R. T. *Am. Pract.* 6:1876. Dec., 1955.

Report of the simultaneous development of gastric and duodenal ulcers in each of two patients having Boccek's Sarcoid treated with ACTH. Neither patient

had a history remotely suggestive of previous peptic ulceration and gastrointestinal roentgenograms prior to therapy were normal. Case 1. 22 year old Negro male was started on 20 mgm. ACTH intravenously scheduled daily for 28 days then reduced to 15 mgm. daily for 6 days and subsequently, 10 mgm. daily for 5 days. Therapy was discontinued during the 5th week because of epigastric pain typical of peptic ulceration. Radiological study revealed a small gastric ulcer high on the lesser curvature, and as a duodenal ulcer.

Case 2. 22 year old Caucasian male, was started on the same ACTH therapeutic schedule, but this had to be discontinued after 5 days because of epigastric pain which was characteristic of peptic ulceration. Gastrointestinal roentgenograms revealed a gastric ulcer in the antrum, and a duodenal ulcer.

Both patients were treated with modified Sippy diet, antacids and atropine. Healing occurred uneventfully in 6 weeks and 3 weeks in the respective patients. Some of the theoretical etiological mechanisms are briefly discussed.

Prophylactic anti-ulcer therapy was recommended for any patients receiving prolonged steroid therapy, and for all patients receiving steroids who have a previous history of peptic ulceration.

# PERINATAL MORTALITY

## I—THE ROLE OF PREMATURE BIRTH

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The term perinatal mortality is used to refer to the deaths of infants which occur shortly before, during, or shortly after birth. Gold<sup>2</sup> has reported a study of perinatal deaths occurring in New York City in 1946-1953. In that series, 90 per cent of early infant deaths occurred during the first month of life and over 50 per cent occurred within 24 hours of birth. Ninety per cent of these deaths were due to perinatal causes. These perinatal deaths were divided by Gold into groups shown in table I.

TABLE I  
*PERINATAL CAUSES OF EARLY INFANT DEATHS*

1. Prematurity (under 5½ lbs.)	51%
2. Injuries and malformations	15%
3. Anoxemia or erythroblastosis	11%
4. Ill defined and unknown causes	41.6%

This study indicates that, although several contributory causes of perinatal deaths exist, premature birth with its associated problems is the leading cause and that it ranks among the leading causes of human mortality generally. Preventive measures directed primarily to lowering the incidence of prematurity and toward reducing the mortality associated with it should favorably influence perinatal mortality.

Factors believed to influence length of gestation up to term include nutrition and general health of the mother during pregnancy. Since nutrition is one of these factors, the economic status of the family and personal and family food habits play an important role in the problem of premature births. The general health of the expectant mother is more nearly a medical problem. Medical guidance and early treatment of deviations from normal good health are necessary throughout pregnancy to insure the best physical and emotional health.

Since the incidence of premature labor is greatest in Negroes, in gravida under 20 years

of age, particularly in young multi-gravida; and in plural pregnancies, it is these women who offer the greatest opportunity for improvement by adequate prenatal care in its broadest application.

In discussing the importance of prenatal care in relationship to the problem of premature delivery, Carrington<sup>1</sup> states: "Systemic, emotional, metabolic and genital factors which may be related to premature labor should be looked for. They frequently are not obvious."

Physical good health is important in allowing conception, in preserving pregnancy to term, and in providing a healthy baby. Maternal ills which necessitate premature, deliberate termination of pregnancy give rise to many neonatal deaths. The survival rate of infants born before the thirty-second week of gestation, calculated from the date of the last menses, is less than 50 per cent. This indicates that the time of probable viability of the baby is not reached until after the eighth intra-uterine month. Thus, it is true that the judicious management of the complications of pregnancy so as to extend the intrauterine life of the fetus, should result in lower perinatal mortality.

Just what influence mental and emotional disturbances have on perinatal mortality has not been accurately evaluated. A happy, enthusiastically expectant mother tends to experience fewer complications of pregnancy and labor than one filled with worries and anxieties. If in addition to a happy disposition, she is also intelligent, she is able to cooperate helpfully in her medical care.

Metabolic disorders may be significant in causing premature labor. An abnormal metabolic rate may be the only evidence of such disorder.

Hyperthyroidism increases the tendency toward premature labor. Formerly, it at times became a valid indication for therapeutic

abortion. Now treatment of hyperthyroidism in pregnant women is strongly indicated. Such treatment, including thyroidectomy, does not disturb pregnancy and it should not be delayed solely because of it.

Hypothyroidism, even without definite clinical symptoms, and whether associated with colloid goiter or not, often results in premature labor as well as in cretinism and congenital goiter in the child. Treatment with thyroid extract is definitely indicated in gravida with even subclinical hypothyroidism.

Prophylactic efforts to prolong pregnancy to term should be directed not only toward maintaining good nutrition and generally good health for the mother. There are at least five specific and frequent causes of premature birth. They are listed in table II.

TABLE II  
*SPECIFIC AND FREQUENT CAUSES OF  
PREMATURE BIRTH*

1. Antepartum hemorrhage
  - a. Placenta previa
  - b. Abruptio of placenta
2. Hypertensive toxemia
3. Premature spontaneous rupture of membranes
4. Repeat cesarean section
5. Multiple pregnancy

There is no way to prevent placenta previa, and it is rarely recognized before serious hemorrhage has occurred. However, it should be thought of and an effort made to rule it out when even minor hemorrhage occurs in the third trimester of pregnancy. Rarely is the first significant hemorrhage caused by placenta previa fatal or even immediately hazardous. When it occurs before probable viability of the fetus, an effort to continue the pregnancy is justifiable. Such early bleeding is no longer a firm indication for cesarean section. The increasing proximity of hospitals with increasing availability of blood for transfusion seems to make that statement sound.

The patient who has her first bleeding episode before viability of her baby should be blood typed and if her hospital does not maintain a blood bank, suitable donors should be arranged for. Although further hemorrhage cannot be prevented by bed rest and sedatives, relative inactivity, sedatives and the avoidance of sexual excitation tend to prevent serious

and dramatic hemorrhage.

Abruptio of the placenta is frequently immediately fatal to the infant. It tends to occur near term. If not rapidly fatal to the baby, the baby often may be salvaged. Since abruptio is frequently associated with toxemia of pregnancy, the recognition and active treatment of early toxemia is, perhaps, the best prophylaxis.

Every abruptio of the placenta is not an indication for immediate cesarean section. If the baby is already dead or is hopelessly premature, there may be no indication. However, the writer does not practice or advocate expectancy in cases where the bleeding is severe and continuous, even though the baby be dead. He realizes that in such cases, the mother usually can be saved by large and continuous blood transfusions, and delivery can be accomplished from below. He also believes that fetal salvage may be as good as that in delivery by section. However, it is his feeling that once delivery is indicated, danger to the mother is lessened, danger to the baby is no greater, and apprehension of the patient and her family is greatly lessened by section—all with a saving of precious human blood.

Toxemia of pregnancy, either severe pre-eclampsia or eclampsia, is the leading cause of death of pregnant women. Because that is true, it is probably the leading cause, either directly or indirectly, of perinatal deaths. The situation will not be improved until doctors and patients realize the serious implications of the earliest signs of toxemia and the necessity for vigorous medical treatment and for close and frequent observation. When recognized early and treated properly, pregnancy frequently may be continued until the baby is surely viable. Cesarean section in cases of toxemia is rarely undertaken in the interest of the child and rarely is it indicated in the interest of the mother with eclampsia.

Premature rupture of the membranes, followed by labor, has been reported to cause up to 20 per cent of all premature births. Statistics indicate further that premature rupture of the membranes occurs more frequently in poor economic groups and especially in Negro mothers. No satisfactory explanation of this

accident of pregnancy has been determined. Some believe that an abnormal condition of the amniotic membrane is always responsible. Others think that chronic cervical infections are a factor. Others blame it on coitus, or upon other physical stress and strain.

It is the feeling of the writer that physical labor and coitus late in pregnancy are both frequent factors. The type of presentation is often the determining factor. Emotional tension and apprehension, with an accompanying tendency to severe Braxton Hicks contractions, frequently result in premature rupture, especially in cases where hard work and frequent coitus have resulted in early cervical dilatation. Breech presentation, especially footling breech and a transverse lie do not protect the membranes from increases in intra-uterine pressure when those membranes overlie a partially dilated cervix.

Rupture of the membranes before certain viability of the child is a serious accident. When pregnancy is near term, labor usually ensues within a few hours, regardless of the treatment employed. In earlier pregnancy, labor may not begin for days or even weeks after premature rupture. In these cases, no effort should be made to start labor. The dangers of lapse of time between membrane rupture and delivery have been greatly lessened by availability of broad spectrum antibiotics. The most serious danger in premature rupture has always been to the child. Pulmonary infections have killed these infants before death from prematurity occurred. The broad spectrum antibiotics have been shown to traverse the placental barrier and to afford significant protection against fetal pulmonary infection.

Next to infections and non-viability, the greatest hazards to the premature infants occur during labor and delivery. These include trauma. However, anoxia is an even greater hazard. These children are peculiarly susceptible to the respiratory depressant effects of all sedatives, amnesia-producing drugs, and all systemic anesthetics. This sensitivity is out of all proportion to the weight and the degree of prematurity. It is true with regard to any

single drug, but it is exaggerated when drugs are used in combination or succession. Little if any such drugs should be given in any stage of labor, and local perineal infiltration, pudendal block, or saddle block should be used terminally if needed. Were the seriousness of the risk to the child of anesthesia and analgesia given the mother more generally recognized by obstetricians, the mortality from prematurity would be significantly lessened.

Repeat cesarean section is included in the causes of perinatal deaths, and its discussion is included in that of deaths from prematurity. What has been said regarding danger of anoxia applies to infants delivered by section. When elective cesarean section has been determined to be the preferable method of delivery, great care should be exercised to avoid premature delivery. The menstrual history is not always a reliable guide to the length of gestational life. It is wise to consider all indications bearing on maturity before section is undertaken. These include the date of the last menses, the size of the uterus at the time of the first examination, the date of quickening, the apparent size of the baby at the time of proposed operation, and the condition of the cervix at that time. Danger of uterine rupture in a pregnancy following a delivery by cesarean section is greater before the onset of labor rather than after labor has begun. The risk of uterine rupture is not seriously increased by postponing section, even up to the onset of early labor, when there is a question as to the prematurity of the baby.

The final cause of premature labor to be discussed is multiparity. The condition itself cannot be prevented. However, labor often may be delayed by restricting strenuous activity, coitus, laxatives, automobile riding and emotional upsets. Even at term, babies of multiple pregnancies are usually lighter than average term babies, so that the degree of maturity cannot be determined by their weights. Prognosis cannot be so determined. Quite frequently small twins are normally mature and cause no difficulty.

#### *Summary*

An attempt has been made to classify the

causes of perinatal deaths. These causes have been divided into maternal and fetal and into antepartum and intrapartum causes, and the role and causes of prematurity have been discussed in some detail.

In a subsequent article, the causes of antepartum and intrapartum deaths will be dis-

cussed.

#### REFERENCES

1. Carrington, E. R.: Obstetric Aspects of Prematurity, *The Bulletin of Maternal Welfare*, Sept.-Oct., 1955.
2. Gold, E. M.: Perinatal Mortality, *J. A. M. A.*, 159: 244, Sept. 24, 1955.
3. Durham, E. C.: *Premature Infants, A Manual for Physicians*, Children's Bureau, Social Security Administration, 1948.

## ELECTROCARDIOGRAM OF THE MONTH\* — ACUTE MYOCARDITIS

DALE GROOM, M. D.\*

Charleston, S. C.

*Case Record*—A 7 year old negro boy was admitted to the Pediatric section of Roper Hospital with a history of having had a sore throat, fever, and cough of two weeks duration. Apparently at the onset of the illness it had been noted by the family that the child had some difficulty in swallowing and that his neck was swollen. One of them had looked in his throat, discovered a whitish membrane in the region of the uvula and painted the membranous tissue with iodine. Shortly thereafter the child was said to have coughed out a "wad" of tissue with subsequent drainage of a large amount of bloody purulent material from the throat. According to the patient's mother he had become increasingly lethargic, had a grunting type of respiration at night and was observed to be somewhat dyspneic at times. Three days prior to admission it had been discovered that the child's face, abdomen and scrotum had become swollen.

Interrogation of the family established the fact that this child had received no immunizations other than a pre-school vaccination for small pox.

Examination revealed an extremely lethargic child with evidence of generalized anasarca, ascites, pleural effusion, enlargement of the liver and edema of the scrotum. The heart was regular at a rate of about 140 beats per minute with the apical impulse diffuse and displaced to the left. No murmurs were audible.

X-ray studies revealed a generalized cardiac enlargement with pulmonary congestion and pleural effusion. Laboratory studies were not remarkable ex-

cept for a persistent 4+ albuminuria and a slight leukocytosis. Throat cultures were negative for virulent *C. diphtheriae* and beta streptococcus, as were cultures made from the patient's available family contacts. The Shick test was negative, indicating some acquired immunity to the diphtheria antigen (which could have been acquired at any time in the past, but might well have resulted from diphtheria two weeks before admission).

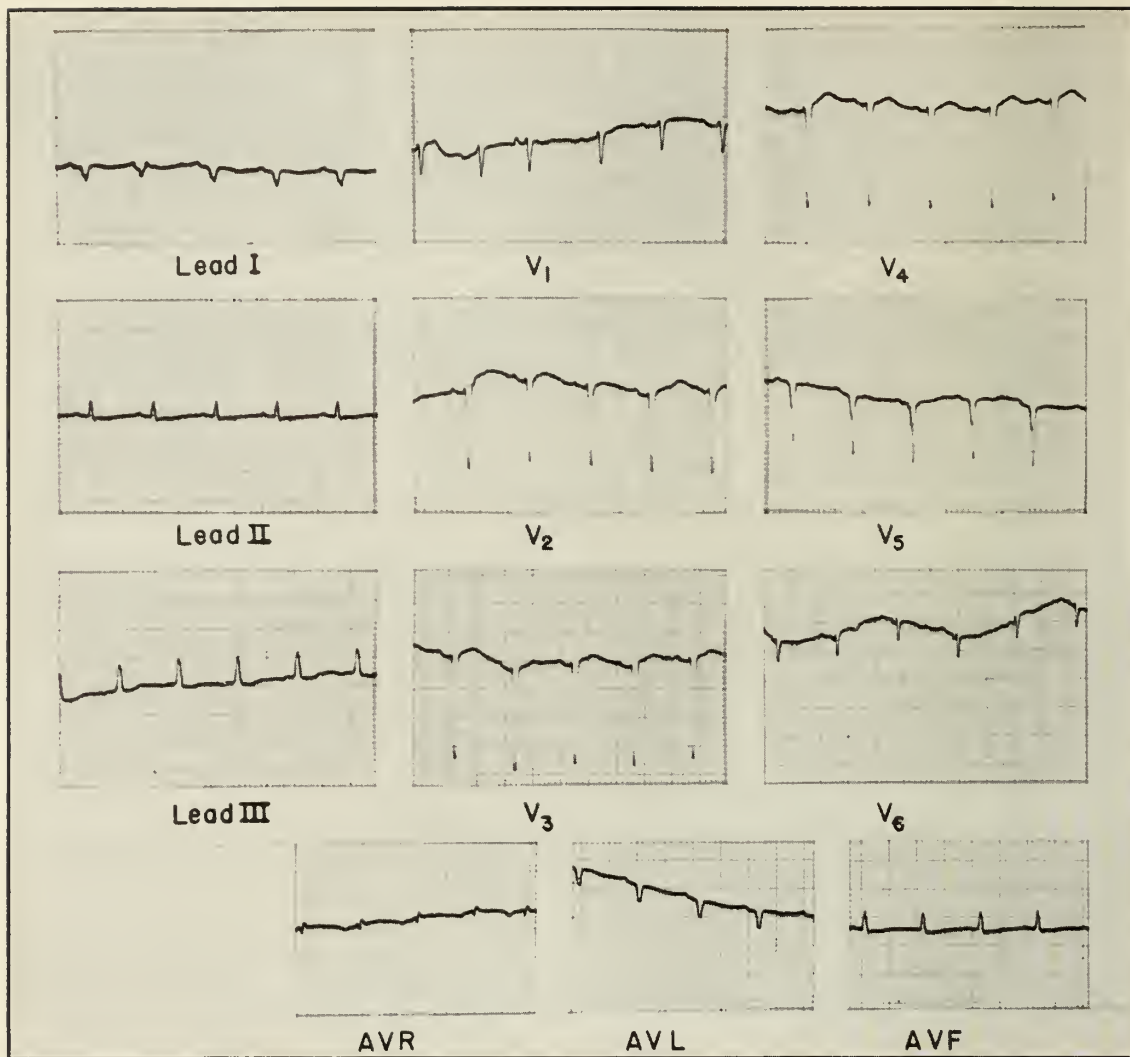
This patient's clinical course was characterized by profound weakness, tachycardia, evidence of congestive failure which failed to respond to digitalis, and absence of fever. After about one month of hospitalization he showed gradual improvement, became more alert mentally, and the albuminuria and edema subsided. His heart size and pulse rate decreased to normal. Two months following admission he was able to get out of bed and walk without dyspnea.

*Electrocardiogram*—The electrocardiogram shown below was taken the day of admission to the hospital. Notable is the almost complete absence of R waves in the precordial leads with only a QS deflection in V-5. The T waves show non-specific changes being flat, diphasic, or inverted in most leads. An upright QRS deflection in lead aVf with downward deflections in aVr and aVl indicates a vertical electrical axis producing the picture of right axis deviation in the standard leads. Voltage of all deflections is low in the standard leads, the QRS measuring 5 mm. or less. There may be some variation in the pacemaker occasionally but the P waves are inconspicuous in most leads. A sinus arrhythmia exists with the rate varying from 140 to 150 per minute.

On subsequent electrocardiograms the T waves became inverted in all leads. Gradually during the twelve week period of hospitalization normal R waves appeared in the V leads, an upright QRS developed in lead I, and at the time of dismissal from the hospital the patient's electrocardiogram was within normal limits.

\*One of a series of clinical-electrocardiographic correlations. Purpose of this series is the presentation, not of necessarily rare or unusual ECGs, but of those which illustrate basic electrocardiographic principles or which contribute prominently to the clinical diagnosis.

\*\*Asst. Professor of Medicine, Medical College of S. C. From the Department of Medicine, Medical College of S. C., and the Roper and Medical College Hospitals, Charleston, S. C.



*Discussion*—This electrocardiogram would ordinarily be interpreted as indicating anterior myocardial infarction. While it does not show any appreciable displacement of the ST segments it is probable that such existed during the two week interval prior to admission to the hospital. Furthermore the T wave inversions which developed in subsequent tracings were indistinguishable from those which are ordinarily seen following myocardial infarction. Such a diagnosis is of course not ordinarily tenable in a patient 7 years of age. Other possibilities that might be considered on the basis of the electrocardiogram alone are neoplasm of the myocardium, congenital absence of the left coronary artery, and acute myocarditis—all of which are capable of similarly impairing

the electrical activity of the ventricles as recorded in the precordial leads.

It is now well recognized that many acute infections have their counterpart in inflammation of the myocardium. Diphtheria, typhoid fever, meningitis, pneumonia, and some virus infections such as encephalitis and poliomyelitis have been shown to involve the myocardium at times even to a fatal extent. Occasionally the inflammatory reaction is quite localized as in this case in which a large portion of the anterior wall appears to be electrically inactive, although the usual picture is one of diffuse widespread involvement with low voltage deflections and non-specific T wave changes. Mural thrombosis with embolization from such an area of myocardial

damage has been known to occur. The restoration of normal R waves in later tracings suggests considerable reversability of the inflammatory process in this case.

Diphtheritic myocarditis with nephritis was considered a likely cause of this child's illness

although that diagnosis could not be established. A viral etiology was deemed as likely. The patient's convalescence was uneventful and, on follow-up examination two months after dismissal from the hospital he showed no residual cardiac abnormalities.

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*Venous Hum in Cardiac Auscultation.* Dale Groom, M. D., John A. Boone, M. D., and Margaret Jenkins, M. D., Charleston, S. C. (J. A. M. A. 159: 639-641, Oct. 15, 1955)

The venous hum is a physiological extraeardiac murmur heard in a high percentage of children and in some adults. It is characteristically a continuous murmur with accentuation during diastole. From its point of maximum intensity in one or both supraclavicular fossae it is frequently transmitted downward over the precordium where it may simulate remarkably murmurs of pathological significance.

The nature of the venous hum sound, as portrayed oscillographically, is described with particular reference to its diastolic accentuation and its comparison to the murmur of patent ductus arteriosus.

Recognition of this adventitious sound arising in the jugular veins is of importance in cardiac auscultation chiefly from the standpoint of differentiating it from pathological heart murmurs.

Characteristically, the venous hum on auscultory examination is accentuated by:

1. *Light* pressure of the stethoscope over the jugular vein.
2. The patient's assuming a sitting or erect position.
3. Turning the patient's head *away* from the side of origin of the hum and raising the chin.
4. The inspiratory phase of respiration.

Conversely, the venous hum is diminished or abolished by:

1. *Firm* pressure by the finger or stethoscope over the jugular vein.
2. The supine position of the patient.
3. Turning the patient's head *toward* the side of origin and lowering the chin.

4. The expiratory phase of respiration.

On the basis of these simple maneuvers the venous hum may be readily differentiated from other precordial murmurs.

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*Acute Cardiac Tamponade, A Complication of Sternal Marrow Aspiration.* Jenkins, L. B., Ferrara, B. E. and Snead, H. P. A.M.A. Arch. Surgery 71: 892, 1955.

Thirteen deaths following sternal puncture have been reported in the world literature in the past 11 years. When performed, autopsies on these cases have shown acute cardiac tamponade to be the cause of death. The present report of a case of cardiac tamponade following sternal marrow aspiration is the first reported case in which the diagnosis was made and in which the tamponade was successfully treated.

The case presented was a 24 year-old Negro male admitted with chronic glomerulonephritis and hypertension. A sternal puncture was performed in the investigation of a severe anemia. The patient experienced some distress initially, but 6 hours elapsed before the classical signs of acute cardiac tamponade occurred. Such a delay suggested that the source of the intrapericardial blood was a site of low pressure oozing, such as the auricles, intrapericardial veins, or retrosternal veins. The cardiac tamponade was successfully relieved by 2 pericardiocenteses, removing a total of 215 ml. of blood. Careful observation for recurrence of the tamponade was made in the 23 days that the patient lived after the pericardiocenteses, but at no time was it implicated in the progression of renal failure and hypertension which lead to his death.

It is suggested that immediate pericardiocentesis be performed in the patient exhibiting signs and symptoms of a failing circulation after sternal puncture.



## MEMBERS DECEASED

<i>Name</i>	<i>Address</i>	<i>Date of Death</i>
Dr. George T. Mansel	Spartanburg	
Dr. Robert E. Seibels	Columbia	May 30, 1955
Dr. Joe P. Jewell	Piedmont	June 18, 1955
Dr. Paul A. Smith	Spartanburg	August 3, 1955
Dr. William S. Bethca	Latta	August 23, 1955
Dr. A. Harry Niell	Clover	August 25, 1955
Dr. Vance W. Brabham, Sr.	Orangeburg	August 28, 1955
Dr. Dennis C. Stoudenmire	Honea Path	September 4, 1955
Dr. Arthur W. Browning	Ellorce	September 28, 1955
Dr. William O. Self	Columbia	September 29, 1955
Dr. William A. Hood	Hickory Grove	October 4, 1955
Dr. Coyt Ham	Columbia	October 15, 1955
Dr. Henry Potozky	Columbia	October 23, 1955
Dr. Charles P. Benson	Landrum	November 17, 1955
Dr. John H. Mathias, Sr.	Lexington	November 19, 1955
Dr. Reyburn W. Lominack	Newberry	November 22, 1955
Dr. Joseph L. Powe	Hartsville	November 24, 1955
Dr. Samuel A. Morrall	Graniteville	December 14, 1955
Dr. J. William Haynie	Belton	December 19, 1955
Dr. Martin Crook	Spartanburg	December 21, 1955
Dr. Thomas A. Murrah, III	Rock Hill	December 22, 1955
Dr. William H. Price	Charleston	December 30, 1955
Dr. Frederick L. Webb	Clinton	January 10, 1956
Dr. Lawrence Manning Hook	Eastover	January 17, 1956
Dr. J. Wilson Ratliffe	Anderson	January 31, 1956
Dr. Ernest Z. Truesdell	Bethune	February 14, 1956
Dr. Theodore E. Bowers	Charleston	February 19, 1956
Dr. J. Sumter Rhame	Charleston	March 4, 1956
Dr. Edward W. Barron	Columbia	March 14, 1956
Dr. Joseph L. Shepard	Jefferson	April 14, 1956

### MEMORIAL ADDRESS—1956

C. R. F. Baker, Chairman  
Memorial Committee

"What we hold in memory is ours forever", and today we are here to keep memory green for those of our colleagues who have died during the past year. To each of us present the occasion is poignant with sadness, for who is there among us who has not lost some close and beloved friend? Some we knew by sight, some by name, and still others intimately—a part of the fragment of our daily lives. Thus we are bound today by a mutual sorrow in their passing, and by searching and troubled thoughts of the closing of the full circle. These men who have died were consecrated to the profession of medicine, in which we, too, feel a common devotion. The solidarity of our profession is one of its strengths, and no profession is bound by stronger ties or by greater faith in spiritual values above the material.

A wise doctor once said that in his experience some of the best work in the world was often done by people suffering from some bodily affliction. Though many of these men were ill and must, therefore, have had some sense of the dreadful shadow ahead, they still gave of their vitality, time, and strength, and some have gone before their time. "Not length of days but use of days" is a fitting epitaph for those who ministered to the sick at the expense of their own health and longevity. In their youth, in choosing medicine, they also chose a way of life, and they kept their original and eager devotion to their profession till death. Thus we honor them today from a full heart—for their going has left us with a sense of waste and loss. How we have missed them, how we still must miss them in some-

thing I'd rather not go into in my mind. As the poet, Edna St. Vincent Millay wrote to a friend after the death of her husband, "Yes, it must indeed seem impossible to you that he will not be coming down the hill to fetch the mail this lovely autumn day. He never comes up the hill either, anymore."

But, this must be our consolation, their deaths are not the end. Dr. Harvey Cushing

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*Prophylactic Use of Quinidine Following Myocardial Infarction.* Boone, J. A., & Pappas, A. South. M. J. 49:169-172, Feb. 1956.

The effect of the use of quinidine and anticoagulants on the mortality following myocardial infarction was studied in the records of 190 patients in Roper Hospital.

Of 190 patients, 54 died, a gross mortality of 28 per cent.

Of 90 patients receiving anticoagulants, 21 died, a mortality of 23 per cent. Of 100 untreated, 33 died, a mortality of 33 per cent. The reduction in mortality with anticoagulants was approximately one-third.

Of 63 patients receiving quinidine, 10 died, a mortality of 16 per cent. Of 127 patients untreated, 44 died, a mortality of 35 per cent. The reduction in mortality with quinidine was approximately one-half.

It is suggested that the routine prophylactic usage of quinidine sulfate in dosage of 0.2 gm. every three hours while awake may be an effective means of reducing the mortality from myocardial infarction.

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*Electrocardiographic Changes Following Adrenalin.* Wilson, Robt. Tri-State M. J. 3:28-30, Dec. 1955.

A case is reported of electrocardiographic changes following the inadvertent injection of 6 ml. of a 1:1000 solution of adrenalin chloride. The mistake was found after 6 ml. had been infiltrated into the tonsillar area: The blood pressure rose to 240/160, later falling to shock levels. An electrocardiogram taken shortly thereafter showed sagging of the S-T levels in many leads, which changes were thought compatible with a severe degree of sub-endocardial ischemia or thrombosis: Further electrocardiograms, later the same day and thereafter, were all within normal limits. The patient made a complete and uneventful recovery and has remained in good health since that time.

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*Calcified Cyst of Spleen, Report of a Case.* Wolte, Albert B. Am. Surgeon 21: 1141-1145, Nov. 1955.

Cysts of spleen are classified as: (1) echinococci, (2) dermoid, and (3) nonparasitic. The latter is subdivided into true and pseudo cysts among which

expressed this well when he wrote about the loss of several beloved doctor friends, "Though lives die, the life is not dead, and the memory of lives such as these will be reverently shared, not by a profession alone, not by a nation alone, but by the universal brotherhood of man." The bright, cherished memory of our colleagues and their works will endure, and it will sustain us.

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the rare calcified cyst is included. The etiology and pathogenesis are poorly understood. There is frequently an associated history of trauma to the spleen. It appears that trauma and diseases which cause vascular occlusion result in infarction, necrosis, and hemorrhage. Resorption of necrotic splenic pulp follows with cyst formation.

These nonparasitic cysts vary in size and contents, and some may or may not have endothelial lining cells. Diagnosis is made by presence of upper left abdominal pain and a mass. Roentgenograms may reveal pressure defects of the stomach and colon and downward displacement of the left kidney. A case report is given of a calcified cyst of spleen with history of trauma ten years previously, with successful splenectomy and recovery. Review of literature through 1954 places the number of nonparasitic cysts at 202 and of calcified cysts including this case at 37.

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*Evaluation of Polyvinyl Pyrrolidone as a Plasma Expander.* Jenkins, L. B. Kredel, F. E. and McCord, W. M. Arch. Surg. 72: 612, 1956.

Polyvinyl pyrrolidone was evaluated in 97 patients as a means of expanding the plasma volume as measured by the hematocrit and Evans blue dye or clinical response in hypotension. The intravenous injection of polyvidone caused an expansion of the plasma volume which disappears in 20-24 hours in the average case. The hematocrit fell an average of 5.8 volumes % 3-5 hours after an infusion of 1000 ml., with a gradual return to the normal range at the end of 24 hours. However, hemodilution persisted for 48 hours or longer in 20% of the patients. When determined by the Evans blue dye method, the plasma volume increased about one-half of the amount of polyvidone given. The total available fluid, as measured by the thio-cyanate method, showed an average rise of three times the amount of polyvidone infused. It is suggested that the increase in total available fluid beyond the amount of polyvidone given is due to the retention of ingested fluid and an internal fluid shift from the intracellular space. No local reactions were observed. One instance of chill and one case of pulmonary edema from too rapid administration were the only constitutional symptoms noted.





## PRESIDENT'S PAGE

The honor of being president of the South Carolina Medical Association is fully appreciated. The responsibility which goes with it somewhat frightens me. I accept it as a challenge and as an opportunity. I shall endeavor to use the office for the purpose of improving medical care in South Carolina. This can best be accomplished by further increasing the strength of the State Association. While the purpose of the State Association is to serve the medical profession, it has also an obligation to the public. There is no conflict between the two. The medical profession should look to it for leadership and guidance in matters pertaining to professional welfare. The public should look to it to promote general medical welfare and in particular to protect it from the selfish interests of various groups and the profession as a whole. While there are a number of societies both general and special, whose interest is devoted primarily to medical education, on the other hand the field of ethics, policy and public relations is peculiarly that of the State Association. Through a State Association which has the complete confidence of the public, the medical profession can best express its aims and present its position on matters of general interest. A strong State Association is to the best interest of the public and the medical profession. To attain this, the support of each and every one of us is necessary.

W. H. PRIOLEAU

# Editorials

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## PRESIDENTIAL SUCCESSION

The Association has passed through a very successful year under the able leadership of Dr. O. B. Mayer. Progress has been made in all directions and business has been transacted harmoniously. Now there comes to the chair Dr. W. H. Prioleau of Charleston, a man of proven executive ability and sound judgment. Under his gavel the affairs of the Association should prosper plentifully.

Dr. Mayer is the son of a former president of this Association. Dr. Prioleau is the stepson of a former president, Dr. E. F. Parker. And our president elect, Dr. D. L. Smith, is the son of former president Dr. D. L. Smith. The impulse to leadership persists in our medical families.

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## FEES AND SERVICES

A new effort to establish a systematic guide to proper charges is being made by the California Medical Association. This is not an attempt to set relative values on the services of the several branches of the profession, but a proposal to place relative values on the various services of any one branch—for example, to have the individual physician set a unit charge for a house call in the day and by a formula determine the fee for a night call, or to have the surgeon set a charge for an appendectomy and by simple arithmetic decide what a more elaborate operation should be worth.

This system should be useful in setting up more definite and perhaps more acceptable fees. It does nothing to solve the question of inequalities in returns for services rendered by different branches of the profession.

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## THE HOXSEY CLINIC

The Food and Drug Administration has taken an unusual and laudable step in con-

demning officially and publicly the Hoxsey cancer clinic which for years has been carrying on a booming business in cancer pills and other cancer "cures". An injunction against shipment of Hoxsey's remedies puts a real obstacle in the way of further harmful exploitation.

More activity in the same direction would be very desirable.

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## A P C VIRUS

The announcement some months ago of a successful clinical trial of a vaccine reasonably effective against infection with Type 3 APC virus gives encouragement to the hope of progress in a field in which the pursued is still far ahead of the pursuer. "APC" means "adenoidal, pharyngeal, conjunctival". It seems a pity to make confusion by using a designation which has been attached so firmly to a widely used relief for symptoms that it will be transferred only with great difficulty to the cause. APC will mean a capsule, not a virus family, for most of us for many years to come.

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The South Carolina Surgical Society elected new officers during its eighth annual meeting in March.

Dr. Edward F. Parker of Charleston is new president; Dr. Claud W. Perry of Anderson, vice president; and Dr. J. Robert Thomason of Greenville, secretary-treasurer.

Dr. Alton G. Brown of Rock Hill on March 23 made the presentation of a portrait of Dr. Frederick E. Kredel to the Medical College of South Carolina.

The presentation was made on behalf of surgery residents trained under Dr. Kredel, the institution's first full-time professor of surgery. Dr. Kenneth M. Lynch accepted the portrait, which was executed by Lee Settemeyer of Rock Hill.

The schedule included scientific sessions, with Dr. H. R. Pratt-Thomas, professor of pathology at the college; Dr. Robert P. Walton, professor of pharmacology and D. Melvin H. Knisley, professor of anatomy participating.

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## WOMAN'S AUXILIARY

### SOUTH CAROLINA MEDICAL ASSOCIATION

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President: Mrs. E. Gordon Able, Newberry, S. C.

Publicity Secretary: Mrs. Ritchie Belser, Charleston, S. C.

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MRS. E. GORDON ABLE  
*President*

Mrs. E. Gordon Able of Newberry was born into a professional family. Her father, Dr. Charleigh T. Dowling was a dentist and her grandfather was a dental surgeon in the Confederate forces. Her mother was the former Selina Moss. A native of Norway, in Orangeburg county, her early years were spent at "The Sycamores," a lovely old home built by her maternal great-grandfather, with much of her growing-up done at the Dowling summer place in Bluffton.

The former Elizabeth Dowling attended Chicora Academy to prepare for entrance to Converse College and from this college, three years later, she received her B. S. degree in Sociology and History. While in college, she was active in campus life, participating in college sports, the Dramatic Club, Y.W.C.A., and the Carlisle Literary Society. During her senior year she was house president of Cudd Building. Later she worked toward a degree in Library Science at the University of North Carolina.

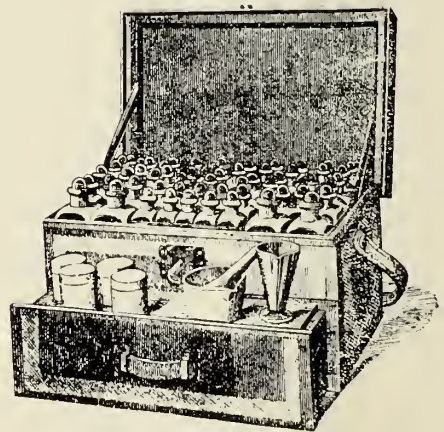
In 1933 she married Dr. Edward Gordon Able, son of a physician, and a well-known general surgeon of Newberry.

She has been active in the Newberry Civic League, and she has been a member of the executive board of this 200-member organization for 20 years. As a Leaguer, she was appointed to the Board of Control of Margaret Hunter Park and Pool, where she supervised beautification and recreation programs. She

was chairman of the committee which restored, renovated, and decorated the Newberry County Community Hall and still serves in this capacity and also as chairman of the House and Grounds Committee of the Hall Commission. She is Vice President of the League, serves as a nurses' aid with the Red Cross Bloodmobile, is a member of the Newberry Garden Club, and a member of the St. Luke's Episcopal Church.

Mrs. Able's past activities, aside from her work in the medical auxiliary, include a term as President of the Newberry Woman's Club, Red Cross Surgical Dressing chairman of Newberry County during the war, a member of the committee which planned Newberry county's gigantic 1939 Sesquicentennial Celebration.

Her special interest in the Auxiliary began with the reorganization of the Newberry Auxiliary on a local level at Mrs. Able's own home. With her qualities of leadership so evident in every undertaking, she was a natural choice for President of the group at that time. At the county level, she was a charter member of the Third District Auxiliary and has served terms as vice-president and president of this District. On a state level she has served as a member of the nominating committee, four terms as membership chairman, and as first vice president.





DANIEL LESESNE SMITH  
PRESIDENT ELECT

*Born 1905 at Newry in Oconee County.*

*Graduated from The Citadel 1927.*

*Graduated from Medical College of South Carolina 1931.*

*Interned at Duval Medical Center in Jacksonville.*

*Took pediatric training at University of Cincinnati.*

*Episcopalian. Former vestryman.*

*Civic affairs: former president of Jaycees; Polio Foundation; Boy Scouts.*

*Medical affairs: secretary, treasurer and twice president of Spartanburg County Medical Society.*

*President of S. C. Pediatric Society.*

*President of Alumni Association of the Medical College of S. C.*

*Member of "Committee of 17" which obtained first appropriation for the new Medical College hospital.*

*Councillor of S. C. Medical Association for 8 years.*

*On faculty of Southern Pediatric Seminar for 20 years; registrar and program chairman for 8 years.*

*Married to Clara Ravenel in 1936; have four children.*

*Was major in Medical Corps, served 4 years—two years in Pacific theater.*

## ANNOUNCEMENTS

The Journal is very glad to have announcements and news of meetings and other events of medical interest. The Journal is mailed about the 10th day of each month. In order to have items appear in any given issue, they should be in the hands of the editor by the 15th day of the preceding month.

### MOUNTAINTOP MEDICAL ASSEMBLY WAYNESVILLE, N. C.

JUNE 21-22-23

#### 6 OUTSTANDING SPEAKERS

Dr. William Hamm, Atlanta, Ga., Plastic Surgery

Dr. Park Nicely, Knoxville, Tenn., Urology

Dr. Julian Price, Florence, S. C., Pediatrics

Dr. Robert Greenblatt, Augusta, Ga., Endocrinology

Dr. Kinloch Nelson, Richmond, Va., Internal Medicine

Dr. Phillip H. Jones, New Orleans, La., Internal Medicine

#### 15 HOURS APPROVED STUDY A A G P

WRITE: J. F. HAMMETT, M. D.

P. O. Box 669, Waynesville, N. C.

### DUKE MEDICAL POST GRADUATE COURSE DUKE UNIVERSITY DURHAM, N. C.

JUNE 18, 19, 20, 21, 1956

1. All meetings will originate in Room 2031, Duke Hospital.
2. Registration. Duke Hospital. Room 2031. Registration Fee \$25.00.
3. Rooms available in the University Graduate Dormitories.
4. Meals may be obtained in the Graduate Dormitory or in the Oak Room in the University Union.
5. All participants of the course will be guests of the faculty of the Medical School at an informal dinner on the evening of June 20.
6. Ward Rounds or a Visit to the Clinics are available on each afternoon. More interesting rounds can be prepared if the participants will indicate their preference in advance.
7. Certificates of Attendance will be provided.
8. Twenty-eight hours of formal instruction is offered during the four day period.

Director of Post-Graduate Education, Box 3088  
Duke Hospital, Durham, North Carolina

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## NEWS

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Dr. D. H. Williams has opened his office for the general practice of medicine in the Weinberg Building in Manning.

Dr. Williams, 34, was born at Johnston, S. C. He received his education at Newberry College, the Medical College of South Carolina, and completed his internship at Columbia hospital. During World War II he served overseas as chief pharmacist mate.

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Dr. Kenneth W. Krueger of Hartsville was made an associate member of the American College of Physicians during its 37th Annual Session at Los Angeles, California in April.

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The Greenville County Medical Society met on May 1 at the Elks Club. Dr. William Hutson Prioleau, clinical professor of surgery at the Medical College of South Carolina was the speaker.

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The Greenville County Medical Society has announced the affiliation of Dr. Walton W. Hamilton with Drs. Will S. Judy, Willis S. Hood and T. E. Whitaker in the practice of radiology. Their offices are at 107 E. North St., Greenville.

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Dr. Bill R. Ewing, formerly of Greenville and Simpsonville, is now associated with Drs. Smith and Ligon in the practice of medicine and treatment of patients at Williamston Hospital.

Dr. Ewing is presently completing special study in the field of anesthesiology and is in Williamston only part of the week. With his background of special study, Dr. Ewing is expected to complete the staff of the hospital.

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On April 20 five sections of the South Carolina Public Health association elected new officers at the 33rd annual meeting of the association in Charleston.

Dr. J. N. Holtzclaw of Greenville is the new chairman of the medical section. Dr. Malcolm Dantzler of Marion will serve as secretary.

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Dr. Albert P. Thomas and Dr. James C. Steele opened their offices on Monday, April 16, for the practice of medicine in Lexington.

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Dr. William W. Goodlett has opened his office for the general practice of medicine at 311 E. Coffee St., Greenville.

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Dr. Sydney Garrett, native of Six Mile, is now associated with Cannon Memorial Hospital in the general practice of medicine.

Dr. Garrett is a graduate of Berea College, Berea, Ky., and the Medical College at Charleston. He is a member of Phi Rho Sigma Medical Fraternity and served his internship at Columbia Hospital in Richland County.

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### THE KERSHAW COUNTY MEDICAL SOCIETY

The regular monthly meeting of the Kershaw County Medical Society was held on May 9, 1956, at Emerson's Restaurant. Dr. Viola Nelken, was hostess to the society for the May meeting.

After dinner was served, Dr. Grayson Shaw, president, was in charge of the meeting. The regular order of business was discussed, which included a resolution made by the society requesting compulsory diphtheria immunizations before entrance to school. Dr. Zemp, delegate, reported this was to be introduced at the 1956 meeting of the South Carolina Medical Society.

Dr. Nelken introduced her guest for the evening, Mr. F. B. Johnson, of the Wyeth Company, who showed an interesting film on "Sparine", a tranquilizing drug. There was a brief question and answer period, after which the society adjourned.

Viola D. Nelken, M. D.  
Secretary-Treasurer

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### MINUTES

State Board of Health Executive Committee  
January 18, 1956

(Excerpts)

It was moved by Dr. Barron, seconded by Dr. Platt, that the State Health Officer postpone further action in connection with the Marlboro Nursing Home licensure in view of developments reported to Mr. Ulmer in letters from the proprietor and the Palmetto Life Insurance Company. Passed.

It was moved by Dr. Hankel, seconded by Miss Chamberlin, that approval be given on the acceptance of Dr. Eleanor Townsend in the position as clinical pathologist for the Board of Health. Passed.

A letter of appreciation from Miss Ellie C. Nelson was read and received as information.

It was moved by Dr. Barron, seconded by Dr. Smith, that the Board of Health underwrite the operation of the Spartanburg County mobile fluoroscopic unit to the amount of \$3,000 until July 1, 1956. Passed.

It was moved by Miss Chamberlin, seconded by Dr. Hankel, that the Committee approve in principle the proposal that the State Board of Health shall, when funds become available, employ a nurse education director and a secretary for the purpose of assisting the University of South Carolina, the Medical College of South Carolina, other State institutions, and the Charleston County Health Department in developing a nationally accredited public health nursing education program. Passed.

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## CORRESPONDENCE

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The National Foundation For Infantile Paralysis  
New York 5, N. Y.

April 23, 1956

Dr. O. B. Mayer, President  
South Carolina Medical Association  
Dear Doctor Mayer:

May I take this opportunity, on the occasion of the annual meeting of the South Carolina Medical Association to express thanks from the National Foundation for Infantile Paralysis to the society as a whole and to its individual members for their excellent cooperation with the state health department and the National Foundation in the successful conduct of the poliomyelitis vaccine demonstration program in South Carolina during 1955.

The chief beneficiaries of this program, of course, were the South Carolina school children, mainly in the first and second grades, who received one or more injections of vaccine supplied by the National Foundation during the year 1955. A total of 243,981 cc. of vaccine was supplied.

You may be interested to know that, thanks to your help, 118,075 South Carolina children received at least one inoculation; 87,780 received two inoculations; and 2,365 received a third (booster) inoculation with this vaccine up to October 29, 1955.

Approximately 46% of the South Carolina children in the 5-9 age group, the age group most susceptible to paralytic poliomyelitis, thus obtained a high degree of protection against the disease in 1955 as a result of this program.

The cooperation of the South Carolina Medical Association helped materially to account for this fine record.

While this is a formal expression of gratitude for your help, the real expression must come from the parents of those many children in South Carolina who feel free from the threat of paralytic poliomyelitis in their families now that the 1956 poliomyelitis season is at hand.

Very cordially yours,  
Hart E. Van Riper, M. D.  
Medical Director

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## DEATHS

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DR. J. L. SHEPPARD

Dr. J. L. Sheppard, 46, of Jefferson died suddenly in April after a period of declining health.

Doctor Sheppard was a native of Laurel, Ohio, and was a practicing physician in Jefferson for the past four years. He was a Methodist and a member of the Masonic order and the Chesterfield County Medical Association.

DR. EDWARD WITHERSPOON BARRON

Dr. Edward Witherspoon Barron, 79, of Manning, died March 14th at the Clarendon Memorial Hospital following an illness of one week.

Dr. Barron was born in Manning February 13, 1877. He was educated in the Manning schools and graduated from the Medical College at Charleston.

He practiced medicine in Salley for two years, then in Manning where he followed his profession until he entered the service in World War I.

After his discharge from the service, Dr. Barron went to Boston and specialized in pediatrics. Upon completion of this training, he went to Columbia where he practiced until his retirement 11 years ago.

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DR. WADE STACKHOUSE

Dr. Wade Stackhouse, 88, one of Dillon County's oldest and most prominent citizens, died March 17 at his residence after several years of limited activity and declining health.

He was born in Marlboro County on October 28, 1867. There he spent his early years and graduated from high school. After winning a scholarship to Peabody College he was graduated in 1887 and went from there to Vanderbilt University where he graduated with top honors—winning all of the medals in his class in 1892. Two years later he took a course at Polyclinic Hospital in New York City and returned to the Mintum Community of Dillon County where he practiced medicine for 13 years.

In 1904 he moved to Dillon where he maintained his practice. Gradually he began to acquire various tracts of land, became more and more interested in scientific farming. He took an active part in the effort to found Dillon County and in 1908 was elected to the state Senate from Marion County. For a number of years he served as chairman of the County Board of Commissioners and helped greatly in the progress of the new county. During these days he gave up his practice of medicine. One of his most outstanding accomplishments was the successful promotion of the coastal highway—the first all-paved road across the State of South Carolina. This highway was eventually to become U. S. Highway 301. In 1918 he organized and built the Carolina Milling Company, which became one of the largest flour and feed mills in the Southeast.

Dr. Stackhouse became a pioneer in the idea of raising cattle in this section and played a great part in the growth of scientific farming in the South.





# BLUE CROSS . . . BLUE SHIELD



## BLUE CROSS — BLUE SHIELD

The material for this article was either suggested by or was actually abstracted from editorials and news releases bearing on the proposal of Michigan's Blue Cross to materially increase rates.

In an editorial, *The Detroit Free Press*, on February 27, discussed the causes of skyrocketing of hospital charges which are reflected in Blue Cross rates. It said: "The public's demand in the last decade for better medical and hospital care has been great. Therefore, on top of inflation must be added the cost of this improved care."

It then examines the question: "Do the allegedly excessive rates (of Blue Cross) reflect only inflation and improved care?" Surveys of hospital cases covered by hospital insurance seems to prove that such is not the case. Such studies clearly indicate that abuses have occurred. These abuses take the form of unnecessary hospitalization, prolonged stays for convenience or comfort, and excessive use of drugs and laboratory facilities. However, it is the opinion of the editor that, even though glaring instances have been found, this type of overutilization does not occur sufficiently often to make a great difference in hospital costs. Our thinking in South Carolina is somewhat similar, but with one great difference—a difference which does affect our rates adversely. It is our experience that we have far too many instances of hospital admissions primarily for x-ray examination and other ancillary services. These cases are actually diagnostic admissions, but they are covered too often by a thin veneer which hides their true character—an admission diagnosis, and a statement that they were admitted for diagnosis *and* treatment. In too many instances, the admitting diagnosis is trivial, and the diagnostic x-ray examinations could have been done on an outpatient basis with equal accuracy but with increased cost and inconvenience to the patient.

The *Free Press* then asks whose fault it is that abuses have occurred: "Is it hospitals for operating inefficiently? Is it physicians who find it convenient to group patients in hospitals for quick and lucrative rounds of call? Is it patients who unnecessarily demand and get from their doctors a bed and costly care? Is it Blue Cross for permitting such known abuses to occur?" He suspects the answer to each question is, "yes."

In Michigan, a bill was introduced in the legislature to require Blue Cross to add a deductible clause to every contract it offered. The bill had the blessings of the insurance commissioner. Actually, Michigan has offered for about a year a contract with a deductible

clause. It has not proved popular. We in South Carolina, through acute emergent necessity, made the cost of room and board in ward accommodations a deductible item in all admissions. It was done in lieu of an increase in rates across the board. Its greatest cost to a hospitalized member was \$18.00 per hospital admission. In some hospitals it was as low as \$12.00. However, it has not proved to be generally popular, and we have lost some groups and some non-group members because of it. Although the inclusion of the deductible provision in the contract did prevent an over-all increase in membership rates, it did not reduce hospital costs nearly as much as had been expected. Although a deductible feature may be continued for a time, it is no panacea for reducing hospital costs.

The unions in Michigan have entered actively into the discussion of Blue Cross problems. They want a contract with more benefits at lower cost. However, as the editor of the *Free Press* so wisely asserts, "You can't slap economics in the face. You can't legislate Utopia." He thinks, as do 3,600,000 people in Michigan, that Blue Cross is doing a good job, and that in Michigan, as elsewhere, Blue Cross is "merely a victim of our rising economy just as everybody else is."

However, he believes that physicians, through their dealings with patients and because they control both hospital services and Blue Cross policies, have failed to take an active public stand on the abuses under the voluntary hospitalization insurance plans. He states: "Because they are so closely involved in the abuses and because voluntary plans were their answer when socialized medicine appeared around the corner, they should be available to counsel the public."

In a recent news release, President Walter P. Reuther of UAW made some thought-arousing statements. He opposed a co-insurance deductible contract on the grounds that such a contract would represent an unnecessary reduction in protection which neither labor nor industry wants. He believes that mandatory co-insurance and deductible provisions would handicap Blue Cross in its competition with other carriers. He strongly opposes governmental intervention in voluntary health insurance plans, beyond enabling legislation and rate regulation.

Reuther thinks the way to eliminate waste and excessive hospital costs is to attack the problem directly at the hospital and doctor level. He thinks that co-insurance and deductible provisions are fundamentally wrong because health protection is not like automobile insurance. There is not a similar op-

portunity to exercise voluntary delay. When a person goes to the hospital, there is usually a sufficiently serious problem present which demands early action. Quoting him: "People cannot go to a hospital unnecessarily without having a doctor admit them. When people stay in hospital too long, or receive the wrong kind of services, a doctor is usually responsible."

His last paragraph is significant for he speaks, or claims to speak, for labor. He says:

"Several hundred influential insurance companies are standing by to dismember Blue Cross, hoping to pick up the pieces. If Blue Cross should fail, labor will not be satisfied with the inferior offerings of commercial insurance. As the Director of the Cincinnati Blue Cross Plan wrote in a recent article in the Journal of American Hospital Association, 'If voluntary prepayment does not provide adequate and continuous protection, it will be discarded in favor of an involuntary, tax-supported program.'"

The remarks of Mr. Reuther are those of a layman, but one who studies health insurance. He and other labor leaders are constantly seeking greater benefit for less cost. His ideas and beliefs are worthy of consideration by Blue Cross, doctors, and hospitals. In one sense, his thinking is always biased in favor of the union. However, when he attempts to *show* Blue Cross how to give rather than simply to demand what he desires, he should be listened to.

We in the South Carolina Blue Cross office do not place the onus for high hospital costs on the doctor to nearly the same degree as does Reuther. We believe that most doctors and most patients are honest. We know that most members of Blue Cross demand all they are entitled to under their contracts. That is a natural demand. It is our feeling that in most instances abuses, if they may be so called, arise from a failure to understand what the contract provides and what it excludes. This lack of information applies equally to the patient and to the doctor. Demand for uncovered benefits usually arises from a lack of knowledge of or a misinterpretation of the terms of the agreement. To a minor degree they arise from carelessness.

Perhaps, the matter of diagnostic hospital admissions is the most difficult to understand and to explain, and benefits under the provisions of the contract are the most frequently abused. The crux of the policy is: Hospital admission and benefits are provided only to members who actually are sick, and sick enough to require hospital treatment. They are not provided for x-ray studies or other laboratory procedures that could be done equally well on an outpatient basis, and to people who are not sick enough to require hospital care. When such x-ray benefits are provided to inpatients, they are limited to those procedures which have a direct bearing on the illness being treated. Incidental, concurrent examinations, without direct relationship to the illness at hand are excluded.

The next most difficult exclusion to understand is that concerning waiting periods, especially waiting periods for conditions which were present on the effective date of the contract. Denial of benefits in connection with the treatment of pre-existing conditions does not require prior knowledge of the condition by the patient or the doctor. It does not require that symptoms must have been present at the time the contract was made. It is necessary only that it be presumed that the condition was present on that date. If so, the member is not eligible for treatment of the condition under his Blue Cross contract until expiration of a waiting period of one year.

J. Decherd Guess, M. D.  
Medical Director

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## BOOK REVIEWS

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*PATHOLOGIC PHYSIOLOGY: MECHANISMS OF DISEASE.* Second Edition. Edited by William A. Sodeman, M. D., F.A.C.P., Professor of Medicine, School of Medicine, University of Missouri. 963 pages. W. B. Saunders Co. 1956. Price \$13.00.

This is the second edition of a cooperative undertaking by 29 authors presenting the abnormal physiology of disease. The subject matter is divided into systems such as respiratory, circulatory, infections and allergy, etc., and further subdivided into discussions of specific topics. These are concisely and lucidly presented with good illustrations. In view of the tremendous field which it attempts to cover the result is of necessity brief and covers only the more important aspects. However, at the completion of each chapter there is an adequate bibliography for those interested in more detailed studies.

Despite the title much of the book is taken up with normal physiology which is followed by good explanations of various function studies used in clinical medicine. Only then is the abnormal physiology of different disease states discussed as it pertains to the preceding. This results in a good review of the pathogenesis of symptoms and signs which is incorporated in a short summary of specific illnesses.

This book serves its primary purpose in being more clinical than the usual texts such as Best and Taylor's "Physiological Basis of Medical Practice" and limiting its subject matter to practical aspects for the student. Consequently it has its greatest value as a supplementary student text and cannot be recommended as a reference work.

Charlton deSaussure, M. D.

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*PEPTIC ULCER—DIAGNOSIS AND TREATMENT.* Clifford J. Barborika, M. D. and E. Clinton Texter, Jr., M. D. Little, Brown and Company, Boston, 1955. Price \$7.00.

This little book presents a rather concise summary

of presently acceptable methods of diagnosis and treatment of peptic ulcer. The viewpoint given is primarily that of an internist and the section concerned with surgical therapy is rather sketchy, not only with regard to technique, but with regard to indications for operation. However, there is an excellent discussion of the postgastrectomy syndromes and their management. The detailed presentation of diets, menus, etc., should be of great value to the student and practicing physician. The attitude of the authors toward gastric ulcer is a rather conservative one. Their evaluation of the results of various operations seemed adequate.

Henry W. Mayo, Jr., M. D.

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*CANCER CELLS.* By E. V. Cowdry, Director, Wernse Cancer Research Laboratory, Washington University, St. Louis. 677 pages, 137 figures. Philadelphia: W. B. Saunders Co., 1955. Price \$16.00.

This book deals with the most perplexing and probably the most important cell that has ever been discovered. Certainly insofar as abnormal cells are concerned the neoplastic one is supreme. The fact that some 570 pages text and 2100 references are committed to this subject emphasizes the complexity and vast implication of the subject. Dr. Cowdry emphasized the far-flung nature of the problem when he commented in the preface: "No individual will ever be able to present adequately what is known about cancer cells. His background and training are sure to be deficient in respects too numerous to mention." This may be true, but Dr. Cowdry has done a remarkable job of culling, condensing and assembling the observations and facts about this biologic pirate.

The first five chapters are devoted to histologic, pathologic, and physiologic fundamentals of cell behavior, but this reviewer hastens to add that the succeeding chapters are of much greater general interest and such items as endoplasmic reticulum should not frighten the general reader into a disorderly retreat. The chapter dealing with the 400-odd known carcinogens in which such entities as Thorotrast, cigarette smoke, food, estrogens and chronic irritation are dealt with liberally is a fascinating and stimulating part. Viruses, heredity, cellular mutation, trauma, and spontaneous regression are all covered in their relationships to neoplastic disease.

In relation to the field of research and cancer control which Dr. Cowdry also discusses it is sobering to be reminded that two discoveries concerning cancer in 1913 and 1923 each of which earned the investigator the Nobel prize did not yield any permanent or improved results in cancer control. The chief advance has actually been in the field of early diagnosis and our better comprehension of the time it takes many cancers to develop. Once fully developed it is still difficult to alter the roll of the dice.

It appears that virtually any facet of the cancer cell may be found reflected in the pages of this book.

H. R. Pratt-Thomas

*COLLECTED PAPERS OF THE MAYO CLINIC*, Edited by R. W. Hewitt, et al 1955. W. B. Saunders Company, Philadelphia. Price \$12.50.

This forty-sixth volume of a series is, as stated, oriented to the interests of the general practitioner, the general surgeon and the diagnostician. A number of the papers are reprinted in full and many others in abridged or abstract form. It reflects in adequate measure the current observations and opinions of the Staff of the Mayo Clinic in various fields. It includes a cogent article on the ethics of medical writing or how "to be in truth an author". The book is well-illustrated and has an adequate index. Any doctor will find material of interest to him in various parts of this comprehensive volume of 843 pages.

Fred Kredel, M. D.

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*CHRISTOPHER'S TEXTBOOK OF SURGERY—SIXTH EDITION.* Edited by Loyal Davis 1956, W. B. Saunders Company. \$15.50.

Much progress has been made in many fields of surgery since the Fifth Edition of this well-known text in 1949. The new editor has assembled an imposing array of collaborators to write the sections for which they are particularly competent. Yet the volume is so well organized that there is remarkably little overlap of material and reflects the great skill Dr. Davis has exemplified in his many years as editor of surgical journals.

An interesting innovation at the beginning of each chapter is a brief biographical sketch of the particular author. The reader may thus acquire a certain sense of personal acquaintance with the writer of each section. Articles on the history of surgery by Allen Whipple and on the training of a surgeon by Paul Hawley are inspiring to the student who may consider a career in surgery.

All the sections are completely up-to-date and contain references to the current literature. This edition will prove of value not only to fourth year students but also to residents and practicing surgeons. It is a comprehensive volume of 1484 pages covering the broad field of modern surgery.

Fred Kredel, M. D.

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*EXPERIMENTAL TUBERCULOSIS: BACILLUS AND HOST with Addendum on Experimental Leprosy.* Ciba Foundation Symposium Edited by G. E. W. Wolstenholme, O.B.E., M.A., B.Ch., and Margaret P. Cameron, M.A., A.B.L.S., Assisted by Cecilia M. O'Connor, B. Sc. 396 Pages with 69 Illustrations, Cloth Bound \$9.00. Little, Brown and Company, Boston 6, 1955.

The Ciba Foundation, an educational and scientific charity, founded by a trust deed in 1947, and supported financially by the world-wide chemical and

pharmaceutical firm with headquarters in Switzerland, provides an opportunity for research workers in medical and scientific fields in all countries to get together informally and exchange information and ideas. This book comprises not only the formal papers of such a symposium on the stated subjects, but also the informal discussions by the participants which, as stated in the preface, attempt—"to give the reader a sense of participation in an informal and friendly occasion". Much stimulating and interesting information is brought together in this book which would not be readily available elsewhere. Although it lacks any immediate useful information for the clinician in the field of tuberculosis, it deals with the intricate chemical structure of the tubercle bacillus, tissue reactions to bacilli and their products, hypersensitivity and desensitization and biochemical and cellular factors influencing the fate of tubercle bacilli in tissues. Some light is shed on the complicated biochemical reactions involved in the well-known clinical phenomena such as the adverse effect of the steroid hormones on tuberculous infection and the known enhancement of tuberculosis by diabetes. This and much more valuable information contained in this book is most stimulating and should prove most valuable to the research worker and investigator. It certainly highlights our limitation of knowledge and points out sources of investigation from which our future progress in the field of tuberculosis must come. The Addendum on leprosy points out a most interesting cross-immunization feature of these diseases and indicates a definite need for correlation in some of the fields of research.

D. B. Gregg, M. D.

*DISEASES OF THE CHEST*, by H. Corwin Hinshaw, M. D., Ph. D., and L. Henry Garland, M. B., B. Ch. W. B. Saunders Co., Phila. 1956. Price \$15.00.

This new book on diseases of the chest unquestionably will fill an exceedingly important place in the library of physicians, surgeons and medical students. It represents, primarily, the vast experience of the authors and their colleagues in the diagnosis and treatment of diseases of the bronchi, lungs, pleura and mediastinum. It does not consider diseases of the cardiovascular system and it does not consider some diseases of the mediastinum such as carcinoma of the esophagus. As one would expect, from a knowledge of the authors' primary interest, the emphasis is on infectious diseases of the lungs, and particularly tuberculosis and diseases with which it might be confused. The format and illustrations are splendid. The index and the bibliography are more than adequate. The book is to be recommended highly as a text for medical students and postgraduate students, and as a reference book for physicians and surgeons.

Edward F. Parker, M. D.

*CLINICAL RECOGNITION AND MANAGEMENT OF DISTURBANCES OF FLUID BALANCE*. By John H. Bland, M. D. 500 Pages Illustrated. Philadelphia, Pa.: W. B. Saunders Co., 1956.

The second edition of this book, appearing 4 years after the first, has been improved in format and enlarged in content. Instead of the paper-backed, notebook-sized first edition, it is now cloth bound and in book form. Chapters have been added on hydrogen ion control, water and electrolyte deviations in liver diseases, pulmonary diseases, central nervous system diseases and trauma. The section on the hormones and disturbances of the adrenal cortex has been greatly increased, in keeping with the rapid advances in knowledge concerning the gland. The important advances in surgical metabolism are incorporated in this issue and the work of Francis Moore in this field is given particular, deserved emphasis. The author again takes pains to present in general the subject for clinical use at the bedside, designed especially for medical students and busy practitioners. In view of such designation, one may overlook the criticism that insufficient data are presented to support the concepts recorded in the text. The material is quite complex and becoming more so. The success with which the author simplifies the subject accounts for the book's reputation as an excellent aid in the clinical handling of problems of fluid and electrolytes.

Louie B. Jenkins, M. D.

*Books in the Physician's Life* by F. Marti-Ibanez in *Internat. Record of Med. & G. P. Clinics*, Oct. 1955.

Many of the obstacles that stand in the way of the progress of modern Psychiatry derive from its grotesque terminology, a vast multiform jargon unnecessarily confusing, and from the compulsion felt by many colleagues to express themselves obscurely and technically so that, since only a few will understand them, they will be subject to a minimum amount of criticism. "Not only don't I understand the mysterious dialect of psychiatrists," said Maranon, "but when I hear them speak, I comprehend but half of what they say." This is the more deplorable since the "verbal" style of Freud himself—and before him Charcot's dialectic and Kraepelin's didactic styles—set one of the finest examples of clarity and harmony. Their prose was beautiful because of its pellucid simplicity.



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# SCISSORISMS

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## THE DOCTOR'S DREAM

I had a dream, and in that dream  
I thought that I had passed  
Into that realm of blissful rest  
That doctors reach at last.

I dreamed of all the ups and downs  
Of thirty years of practice,  
That brought with many a scented rose,  
Its compensating cactus.

. . . About the doctors and their bills,  
The good and bad we did,  
The lives our skill so often saved,  
Mistakes the earth had hid.

The strictures on our moral worth,  
The sins we do commit,  
And universal dump we get,  
By wholesale in the pit.

For many hold 'twould be so hard  
Through Heaven's gate to wheedle  
A doctor as to drive a camel through  
A hypodermic needle.

Yet in my dream there seemed to be  
Misapprehension here;  
For I felt sure physicians will  
Among the saints appear.

. . . For from the fount from whence they're cleansed,  
E'en doctors may come clean;  
God gives to no exclusive class  
The power to enter in.

. . . And thus I dreamt that round me stood  
The victims of disease,  
The patients I had failed to cure,  
Though some had paid my fees.

One said, "It is a happy place,  
My bliss is unalloyed;  
Through your mistakes just ten years more  
Of Heaven I have enjoyed."

. . . Another made this queer complaint;  
"I'm prematurely sent;  
The bungling doctors got me here  
Before development.

"I'm filled with love, my joy overflows,  
But what I most regret,  
On earth I should have staid and got  
Capacity for it."

I here got shaky in my shoes,  
And asked if they'd attack us,  
And raise a rumpus in these courts,  
With questions of malpractice.

"Oh, no!" he said, "there's no redress,  
No righting this affliction:  
For courts are not in session here  
For want of jurisdiction.

"And if they were, in our behalf  
We must ourselves appear;  
A first-class lawyer can't be had,  
I never found one here" . . . .

William Snowden Battles, M. D.

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## BIOGRAPHICAL SKETCH

ISAAC A. ABT

(Dec. 18, 1867 — Nov. 22, 1955)

Recently there died in Chicago one of America's greatest men. He was eighty-seven years old and had been granted sufficient time and the opportunity to accomplish much for mankind. He was not a general nor was he a statesman, though he had planned many important campaigns and when and where diplomacy was necessary he had used his gentle, calm, convincing way to get results. This man was only a doctor—a specialist in the diseases of children. Dr. Isaac A. Abt was one of our earliest and in his time, one of the best trained "Baby Doctors" in the United States. In his early years he had good training at home and then several years abroad perfecting himself.

Most of his life was spent in Chicago where he gave many hours to his practice and teaching. His clinics and his professorship were begun in 1897.

Early he was the President of the American Pediatric Society and a founder of the American Academy of Pediatrics and its first president in 1930.

He contributed hundreds of articles to pediatric literature and wrote several books.

His autobiography called *The Baby Doctor*, which was published in 1944, is full of interesting anecdotes and shows the advances made in the diagnosis and treatment of diseases of children during his life time.

For a great many years he was the editor of *The Year Book of Pediatrics*. He is credited with being the first to give diphtheria antitoxin and to use an incubator in Chicago. He planned and built the first Children's Hospital in that city.

Dr. Abt was a member of many state and national societies and of a number of others abroad.

In addition to being an excellent doctor and an unusually gifted teacher, he had a lovable disposition and a delightful sense of humor, which endeared him to his hundreds of friends far and wide in the United States and elsewhere.

He, like a meteor, illumined the world and now has passed on. But even so, the good that he did lives on in the bodies, the minds and the hearts of his patients, his pupils and in Pediatrics.

R. M. P.

**HANDBOOK OF TOXICOLOGY**, Volume I, Acute Toxicities by William S. Spector, W. B. Saunders Company, Philadelphia, 1956, 408 pages, Price \$7.00.

The salient feature of this book is the conciseness of its presentation of information. Two thousand solids and liquids and two hundred gases are listed with lethal doses, the animal to which they apply (humans are not listed), the route of administration, the vehicle, time of death and pertinent references. Use of this book will materially reduce the time needed for library search for material relating to the toxicity of various materials, but probably would be of less value to those interested in therapy in acute toxicities in humans.

Wm. McCord, M. D.

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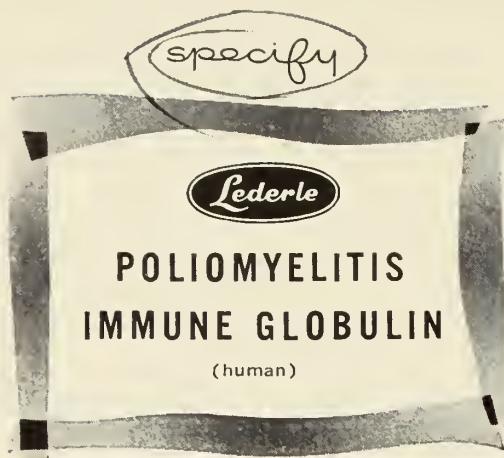
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## THE INDUCTION OF PREMATURE LABOR

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Winston-Salem, N. C.

There has been a definite trend in the past three decades for certain procedures in obstetrics to be called the "newer obstetrics," or better, the "accelerated" obstetrics. This has been manifested by shortening the second stage of labor with low forceps and episiotomy in the belief that a long second stage of labor may cause irreparable damage to the mother and child. Zealous advocates of this technique would make every delivery an operative one and do away with the normal second stage of labor. These same disciples, having convinced themselves that they now control the second stage to advantage, believe they can do something in like manner about the first stage. In order to accelerate labor or delivery at the patient's or doctor's convenience, premature induction of labor has now become quite fashionable in some places. As pointed out by Ross,<sup>1</sup> artificially induced labor is different from spontaneous labor and the correct term is induction of premature labor because, except for the poorly understood postmature syndrome, all term labors commence spontaneously. The followers of the "newer obstetrics" must not forget that it is the normal physiological process of labor which has always produced the lowest morbidity and mortality rates of both mother and child.

It is admitted that there are real indications for shortening the second stage of labor by the

use of low forceps. Likewise, it must be admitted that there are indications for the induction of labor and that the skilled accoucheur can induce labor safely provided he recognizes certain criteria. The statement that induction of labor is a necessary evil of obstetrical practice should be reserved for those who lack this skill.

### *Methods of Induction*

The medical literature is replete with articles on the subject of induction of labor. Solomon and Starr<sup>2</sup> cite one of the earliest references: "In the first century after Christ, Soranus, in a text book of midwifery, described artificial rupture of the membranes as a method of inducing labor." Mary Donnelly, of England, in 1738, ruptured the membranes in a patient with contracted pelvis in order to induce premature labor. Many procedures, both operative and nonoperative, have been used. Some have stood the test of time and others, fortunately, have fallen by the wayside.

### *Castor oil and quinine*

The time-honored combination of castor oil and quinine, as a means of inducing labor, does not enjoy the favor it once did. This is particularly true of quinine since deafness and death of the fetus have been attributed to its usage. It has been estimated that approximately 50 per cent of the women at term go into labor after taking castor oil. The procedure is fairly innocuous and, if successful, prevents the untrained from pursuing other methods to disadvantage. We believe if castor

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oil fails one should wait at least 4 or 5 days before repeating the dosage, and it is quite possible labor might start spontaneously in this period of grace.

### *Bougies and bags*

The insertion of soft rubber bougies between the uterine wall and fetal membranes to stimulate uterine contractions was first reported by Krause, in 1855. These instruments were responsible for an increase in maternal infection, ruptured uterus, and prolapse of the cord. It is the general consensus that bougies have no place in modern obstetrics.

The first bag was devised by Braun, in 1851, and de Ribes described his in 1888. This was later modified by Barnes and Voorhees. Few obstetricians today make use of a bag as a means of inducing labor and its field of usefulness is limited. Gatewood,<sup>3</sup> Newman,<sup>4</sup> Waters,<sup>5</sup> and Webster<sup>6</sup> have reported bags to be successful in 90 to 96.3 per cent. The operative incidence in Newman<sup>4</sup> and Waters<sup>5</sup> series was nearly 50 per cent and the maternal mortality was 2.1 per cent and 2.4 per cent respectively. Waters<sup>5</sup> found the corrected fetal mortality to be 7.8 per cent and maternal morbidity 37.7 per cent. Brame,<sup>7</sup> between the years of 1925 to 1934, reported that 112 eclamptics were treated at the University of Virginia Hospital with a maternal mortality of 15 per cent. Bags were used 32 times with 6 deaths, an incidence of 19 per cent. At the same institution Thornton<sup>8</sup> had a comparative series of 114 eclamptics in the years 1939 to 1949 with 7 deaths, an incidence of 6.1 per cent. No bags were used in Thornton's series and he has informed me that to his knowledge no bags have been used for any obstetrical procedure in the past 10 years. Ward and Sellers,<sup>9</sup> in a review of maternal mortality in the Southern Baptist Hospital, in New Orleans, found that 10 deaths in their series of 46 were due to induction of labor with bougies or bags, and makes the statement that these methods of induction should be discontinued entirely. We have never employed bougies nor bags for induction of labor and do not advocate their use as such.

### *Artificial rupture of the membranes*

Amniotomy is the most common form of surgical induction of labor practiced in this country. It is a simple procedure which can be done without the aid of anesthesia. We believe that before elective induction of labor by artificial rupture of the membranes is attempted certain criteria must be fulfilled.

1. The vertex must present and be well engaged.
2. The patient should be at or past her estimated date of confinement.
3. The cervix should present anteriorly, be 50 per cent or more effaced, and dilated 2 to 3 cm.

The complications of artificial rupture of the membranes are:

1. Prolapse of the cord, arm, or leg.
2. A latent period between the time of the rupture of the membranes and the onset of labor.

Both of these conditions are rare if the criteria laid down are followed.

The results of a survey made in 1939 by the Committee of Induction of Labor of the Central Association of Obstetricians and Gynecologists<sup>10</sup> showed the incidence of prolapse of the cord or arm was three times as high in the group of patients in whom labor was induced by rupture of the membranes as compared to those patients who had no induction. Keettel<sup>11</sup> found the incidence of prolapse of the cord or arm twice as great in 1000 patients whose labor was induced by rupture of the membranes as in the control group of 1000 cases in which labor was not induced. However, Eastman,<sup>12</sup> Grier,<sup>13</sup> Hanley,<sup>14</sup> Reyeraft,<sup>15</sup> Solomon,<sup>2</sup> and Winn,<sup>16</sup> adhering to the above mentioned conditions before rupturing the membranes, had no increased incidence of prolapse of cord or arm.

Another danger of artificial rupture of the membranes is an increased incidence of infection in the mother. This is directly related to that period (latent) from the rupture of the membranes to the onset of definite labor.

The latent period should not be long enough to jeopardize the safety of the patient except in the rare case, but trouble can happen and makes the procedure of rupture of the membranes not entirely a harmless one. McCord<sup>17</sup> said, in 1939, "When one decides to induce labor by rupture of the membranes, all bridges are burned; one's steps cannot be retraced."

High puncture of the membranes as practiced in England for the past decade has not been done by us. In so far as I know it has few advocates in this country. Disadvantages would seem to be hemorrhage from trauma to the placenta during the procedure and also the danger from infection, the latter, of course, increasing if the procedure is repeated.

#### *Pituitary extract*

Pituitary extract as a means of stimulating uterine contractions was first introduced by Blair Bell in 1909. Fries and Studney, in 1911, were the first to report successful induction of labor by hypodermic administration of this substance. For years the use of this powerful oxytocic, prior to delivery, was severely criticized by the leading obstetricians of our country. It was customary in many medical schools never to use pituitary extract until after the birth of the child or placenta or both. The articles of Reid<sup>18</sup> and Eastman,<sup>19</sup> in 1946 and 1947, on the use of pituitary extract in uterine inertia and the work of Hellman<sup>20</sup> and others on the intravenous use of oxytocin injection (Pitocin), aroused new interest in this drug as a means of induction, although the original papers were limited to uterine inertia. We believe that Pitocin is the only oxytocic which should be administered in late pregnancy before delivery and prefer the intravenous route. Our solutions are made by mixing 5 minims of commercial Pitocin with 500 ml. of 5 per cent glucose in water. In order to avoid an overdosage of the Pitocin infusion we have found it necessary to begin the intravenous solution without the Pitocin until a slow rate of flow is established which is generally 9 drops per minute. Once the rate of flow is well regulated the Pitocin can then be added to the solution, which is thoroughly

shaken. One must remember that it takes a little time for the added Pitocin to flow through the polyethylene tube into the patient's vein and that a minimum of 15 minutes should be allowed for the rate of 9 drops before the flow is increased.

As pointed out by Page,<sup>21</sup> "The threshold of sensitivity (of the Pitocin solution) parallels the degree of spontaneous motility, and may vary a hundred fold from one patient to the next. There is, therefore, *no standard dose, no safe dose, and no dangerous dose of Pitocin when measured by minims, milliliters or units. . . . the dosage can only be measured in terms of uterine response.*" Therefore, it is essential that this small rate of flow be used to test the sensitivity of the individual and prevent tetanic contractions or a ruptured uterus. The rate of flow is increased slowly and gradually in order to produce uterine contractions, which, of course, should resemble normal labor. All contractions are carefully timed as to duration, interval and type.

Commercial Pitocin contains a small amount of vasopressor substance and for this reason blood pressure should be checked at frequent intervals. Likewise, the fetal heart should always be checked carefully throughout the procedure. If one is able to establish good uterine contractions coming at 5 to 6 minute intervals with a flow of 9 to 20 drops a minute, there is no reason whatsoever to increase the rate of flow because these contractions will become closer as labor progresses just as it does in the normal type.

If one cannot be in constant attendance when the intravenous Pitocin is running, or does not have personnel available to watch it, the best technique is to use two bottles connected to a Y-tube. One bottle contains 5 per cent glucose in water and the other bottle 5 per cent glucose in water with the 5 minims of Pitocin. With this type of set-up the rate of flow can easily be regulated before switching to the Pitocin and in case the attendant leaves the patient the Pitocin solution can be immediately cut off and the other bottle opened. In this manner the patient is not left unattended with the intravenous Pitocin solution

running and at the same time the needle in the vein is kept open.

#### *Contraindications for Pitocin*

The contraindications to the use of Pitocin are:

1. Feto-pelvic disproportion
2. Parity of 5 or over
3. Previous uterine scar
4. Lack of trained personnel

When in doubt, don't use it.

The dangers of Pitocin are:

1. Tetanic contractions of the uterus with fetal death.
2. Rupture of the uterus.
3. Elevation of a normal or abnormal blood pressure.

#### *Indications for Induction of Labor*

Indications for induction of labor may be divided into 2 groups: 1) medical, which includes diseases incidental or accidental to pregnancy, and 2) nonmedical or elective.

The elective group includes by far the greater number indications for inductions and is apparently gaining in popularity. This group includes all cases of maturity, postmaturity, large babies, and the nonresident patient. Induction should be done for the convenience of the patient and not the obstetrician. The supposed advantages of this method are:

1. It alleviates the fear of the patient that she will have an unattended delivery at home or on the way to the hospital.
2. There is no midnight rush to the hospital and the problem of getting an attendant for her children.
3. Labor is induced when the patient's stomach is empty, thus eliminating the danger of aspiration.
4. The obstetrician is available and supervision of labor might be more adequate during the day.
5. Labor is shortened.

There are those in our specialty who rightly condemn this indication and call it "meddlesome midwifery." They believe, as does Colvin,<sup>22</sup> "If pregnancy and labor are still to be regarded as a physiologic process, the burden of proof for successful outcome following elective induction of labor becomes a moral

and legal responsibility of those who so boldly interfere and accept responsibility for the management of unexpected complications after labor has been initiated in a normal process."

If the criteria previously mentioned under artificial rupture of the membranes are observed, then it would seem that the statement by Eastman<sup>23</sup> deserves attention. He said, "It is abuse of the procedure which calls for condemnation and not its judicious employment in carefully selected favorable cases. If the attendant willfully disregards the correct prerequisites or his training has been so inadequate that he does not know them, amniotomy may put the life of both mother and child in deadly peril. Many do not even know the meaning of a favorable cervix. Given a gravida at term with a head below the spines, the cervix soft, 50 per cent or more effaced and 1 to 2 cm. dilated, amniotomy is just about 100 per cent safe and an efficient method of initiating labor."

It is a human weakness for one to become overenthusiastic about any procedure that offers convenience. In his zeal the physician fails to observe the proper criteria because he now believes he can induce labor in all patients supposedly at term on Thursday or Friday and be free for the weekend. A friend of mine, from a distant Southern state, recently informed me that he ruptured the membranes of all term multigravidas at 6:30 A. M. and delivered them in time for him to be in his office at 10:30 A. M. His primigravidas have their membranes ruptured at 7:30 A. M. in order to accomplish the same thing by 3:30 P. M. Such individuals have convinced themselves and have shown to their own satisfaction that the infant mortality and maternal morbidity are no higher than those in the group which had no induction. They fail to tell you, as their associates will, that they get into occasional trouble and they forget those periods of mental anguish when a long latent period sets in. To lose one baby or to inflict any morbidity on a patient is too high a price to pay for convenience.

#### *Contraindications to Elective Induction of Labor*

The contraindications to elective induction

of labor are:

1. A long, rigid cervix.
2. Malposition.
3. Obstruction to the birth canal.
4. Disproportion.
5. Lack of engagement.
6. Total placenta praevia.
7. Grand parity.
8. Suspected position of umbilical cord ahead of the presenting part.

It must be remembered that normal labor may at times be accompanied by intrauterine death for which no cause may be found. Should this occur with artificial rupture of the membranes in elective induction, the obstetrician must be prepared to accept the blame. Likewise, it must be remembered that a vasa praevia or an umbilical cord between the head and amniotic sac may be unrecognized when amniotomy is performed and may cause irreparable damage to the infant.

We do not mean to imply that we have never induced labor for convenience. In a five year period, 1951 through 1955, I have personally delivered 1425 babies and have induced labor for convenience in 125, an incidence of 8.7 per cent. There were no fetal nor maternal deaths in this series and the morbidity was less than one per cent. Most of these patients were nonresidents and multigravidas, living 30 to 75 miles distant. Rupture of the membranes alone, or in combination with intravenous Pitocin, was the procedure most commonly used. I have never ruptured the membranes for elective induction if the head was not engaged and the cervix was not favorable.

In January, 1956, because some members of our visiting staff were inducing labor when the proper criteria were not present, and because we are a teaching hospital for medical students and house officers and believe that the most effective teaching is through precept and example, a regulation was put in force which requires a written consultation for the induction of labor. The consultant must examine the patient and confirm that the following conditions are present before elective induction of labor is permitted. These are:

1. Engagement of the presenting part.
2. Effacement of the cervix to less than 1 cm. in thickness.
3. Dilatation of the cervix to more than 3 cm. prior to the onset of labor.

#### *Medical Indications*

In the interest of both mother and child there are certain medical conditions in which it would seem best to induce labor. These conditions are placenta praevia, abruptio placentae, and diabetes. If the cervix is favorable the simplest method of induction is artificial rupture of the membranes. The treatment for abruptio placentae to prevent marked dissemination of thromboplastin, resulting in hypofibrinogenemia, is rupture of the membranes. One is amazed that even with a questionable unfavorable cervix how quickly some of these patients proceed into labor and delivery. Page<sup>21</sup> states that intravenous Pitocin should not be used in abruptio placentae because of the danger of amniotic fluid embolism or hypofibrinogenemia which may result. Because of the unexplained intrauterine death occurring in the latter weeks of pregnancy of a diabetic mother, delivery of the infant is indicated between the 36th and 38th week of gestation. In a few cases where the cervix has been unfavorable for amniotomy we have used intravenous Pitocin to prepare the cervix, but we are not convinced that this is the best procedure.

We have not induced labor for cardiac or tuberculous patients. The cardiac load definitely decreases during the latter weeks of gestation and because of our inability to accurately estimate this time we prefer to allow these patients to go into spontaneous labor. The relative safety of cesarean section today does not warrant the premature induction of labor in a contracted pelvis.

It is our opinion that the foremost medical indication for induction of labor is toxemia of pregnancy. Some years ago we became interested in a method of inducing labor in a toxemic patient not at term. In 1952, we published<sup>24</sup> the first paper on the use of intravenous Pitocin in the management of toxemia of pregnancy. It was our purpose then as it

is today to avoid cesarean section as a method of emptying the uterus because we did not wish to place a uterine scar in our young primigravidas who still had their families to raise. We do not believe that cesarean section necessarily makes an obstetrical cripple, but we do believe that this operation carries immediate and remote complications. It may be a deterrent to future child bearing and may tax the judgment of the obstetrician in future deliveries. As the length of our series has increased through the years we are now also convinced that the infant of a toxemic mother has a much better chance of survival if delivered by the vagina and this is particularly true of the premature infant.

In 1955, we published<sup>25</sup> our entire experience to date with Pitocin as a means of induction of labor in toxemia. Labor was induced in 104 out of a total of 703 toxemic patients by this method. Thirty-two of these patients were known to have premature infants prior to induction.

This method has been used only when we felt that the persistence of toxemia was hazardous both to the mother and the child. It is well known that prolongation of intrauterine life in toxemia does not always bring the infant to term as it may die apparently from the same disease suffered by the mother. The risk of prematurity is preferable to the chance of intrauterine death. It must also be recognized that the hazards faced by the mother with toxemia are premature separation of the placenta, eclampsia, and residual hypertension when the toxemia is of long duration. Our procedure usually requires several days and it is not used in patients showing evidence of a rapid progression of the disease such as oliguria or uncontrolled eclampsia. In these patients, the need for immediate interruption of pregnancy is imperative.

We have demonstrated to our own satisfaction that the long, closed, or so-called "unripe," cervix can be converted into a "favorable" cervix by the repeated intravenous administration of Pitocin. In our series of 104 patients there were only two who did not respond to this method of induction. All pa-

tients are taken to the labor room and the drug is usually administered during the day time, the patient receiving the intravenous Pitocin by the method previously outlined in this paper. She is given a solution containing 5 minims of Pitocin in 500 ml. of 5 per cent glucose in water. This usually requires a period of 6 to 8 hours. If labor fails to occur the patient is returned to her room for a night's rest. The procedure is repeated on successive days until labor starts, or the cervix becomes favorable for the rupture of the membranes. When the membranes have been ruptured the patient will usually start into labor, or this may be abetted by intravenous Pitocin. All patients must be kept on their usual sedation while receiving this form of treatment. It is this repeated daily administration that spells the difference in successful or unsuccessful induction.

Our policy in all cases of toxemia following the patient's admission to the hospital, is to attempt to classify and stabilize the toxemia. Without observation and treatment for a period of at least 24 to 48 hours we do not believe the condition can be properly evaluated. Pitocin is not administered until this evaluation has been completed and the average hospital stay prior to delivery by the use of Pitocin has been 7½ days, the longest 30 days. All patients receiving intravenous Pitocin have been kept under constant observation. We have had no marked elevation of blood pressure with our patients during induction, but this condition has been reported by others and certainly must be watched for. Should this occur the Pitocin solution should be immediately stopped. We have had no tetanic contractions resulting in fetal death due to anoxia, but the possibility of this occurrence must be kept in mind. There has been one maternal and fetal death in our series. This patient sustained a ruptured uterus from the injudicious use of Pitocin and died as the result of poor surgical judgment and technique. The infant was a hydrocephalic, and was still-born.

Several cases from my own private practice are illustrative of our method and result.

A 21 year old primigravida, the wife of a medical student, was admitted to the hospital on February 3, 1950, in the 33d week of pregnancy. Her prenatal course had been entirely normal until seen in our office on the day of admission, at which time blood pressure was 160/110. The urine contained albumin, 2 plus, and she had gained 7 pounds in weight in the past three weeks. There was marked edema of the legs and face. Laboratory studies at the time of admission showed NPN of 41 mg. per 100 ml., uric acid 6.4 mg. per 100 ml., and serum protein 7.1 grams. The patient was immediately placed on heavy sedation of phenobarbital supplemented with Seconal, and was given magnesium sulfate intramuscularly. She was fed on a high protein, salt-free diet, and received ammonium chloride for the edema. After one week of therapy the blood pressure was still elevated, the diastolic pressure remaining constantly above 100. The patient had lost 21 pounds in weight.

On the 10th hospital day the blood pressure rose to 150/120 and remained there for a period of 24 hours. The blood uric acid was 8.9 mg. The urine showed a 2 plus reaction for albumin. With these findings interruption of pregnancy was considered necessary and on the 11th hospital day she was given Pitocin. The cervix at this time was 3 cm. long, undilated, and the head was floating. On the second day intravenous Pitocin was administered and the patient went into labor spontaneously and was delivered under local anesthesia 12 hours after the Pitocin was discontinued. The birth was spontaneous and the infant weighed 1447 gm., (3 pounds, 3 ounces), and did well. The patient was discharged on the 13th postpartum day with a blood pressure of 120/80. At the time of discharge the urinary findings were negative. The child is now over 6 years old, and is normal in every respect. The patient has had two additional full term pregnancies with no complications.

The second case—A white female, age 37, was admitted to the hospital on September 11, 1951, with a pregnancy of 31 weeks duration. This patient had been treated approximately three weeks in a nearby town for hypertension and edema of the ankles. There was no improvement. Her past history was negative for any hypertension or cardiac disease. She had some albuminuria one year previously following an infection of a tooth. At the time of admission the blood pressure was 160/110. Catheterized urine was essentially negative except for an occasional hyaline cast. NPN was 49 mg. per 100 ml. and the uric acid 7.3 mg. The uterus was gravid and reached approximately 20 cm. above the symphysis. She was placed on conservative treatment which consisted of sedation, phenobarbital, high protein, low salt diet, absolute bedrest, daily urine analyses, and record of intake and output, and daily weight. Repeated Fishberg tests showed the highest concentration to be 1.018. This patient's systolic blood pressure averaged around 170, and the diastolic pressure varied from 90 to 100 for the first 14 days of treatment. Toward the latter part of the third week and throughout the fourth

week the systolic pressure ranged from 160 to 200, and the diastolic from 90 to 110. The uterus had not increased to the size of a normal 34 weeks' pregnancy. It was felt that with a rising blood pressure we were facing possible superimposed toxemia and a poor prognosis for the infant.

On October 7, 1951, a sterile pelvic examination was performed by me which revealed that the cervix was 2 to 3 cm. in length, and would not admit the tip of the finger. The fetal head was at a minus 3 station. On this day she was started on intravenous Pitocin, which was repeated for the next 5 consecutive days. On the fourth day a sterile pelvic examination showed the head to be at a plus 2 station. The cervix was 1 cm. in length. The cervical os easily admitted one finger and could be stretched to 2 fingers. The membranes were ruptured. Pitocin was repeated and the patient was delivered on the following day spontaneously under local Novocaine anesthesia with the aid of episiotomy of a normal female infant weighing 2 pounds 8 ounces. The child did well and is now almost 5 years old, apparently normal in every respect. When last seen approximately one year ago, the patient still had an elevation of blood pressure.

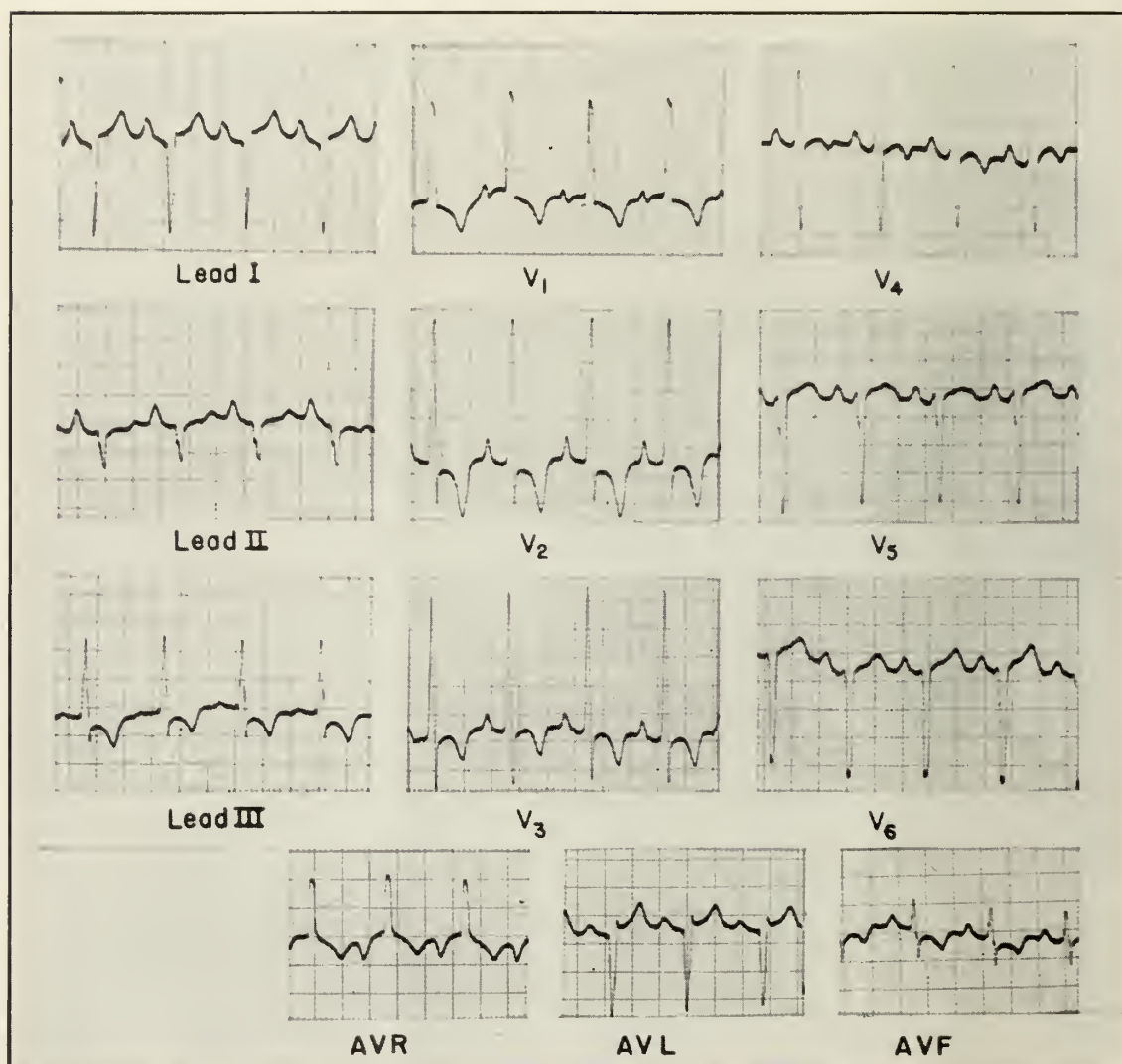
### Conclusion

The best methods for induction of labor are either artificial rupture of the membranes or intravenous use of Pitocin or both. The dangers of each must be recognized and their limitations carefully observed. The induction of labor is justified in selected cases of toxemia, abruptio placentae, placenta praevia, and diabetes. The obstetrician must share the full responsibility of any hazard to the mother or child in the elective induction of labor.

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*Electrocardiogram of the Month—Dr. Dale Groom*

# ELECTROCARDIOGRAM OF THE MONTH\* — PULMONARY STENOSIS

DALE GROOM, M. D.<sup>°°</sup>  
Charleston, S. C.

*Case Record*—A 15 year old girl was referred to the Medical College Heart Clinic for evaluation of a heart murmur discovered as an incidental finding on physical examination. She acknowledged having had a decreased exercise tolerance which had progressed during the last three years to dyspnea and exhaustion on even moderate exertion. Her mother stated that the patient had been born prematurely, maintained in an incubator for several weeks after birth, and that her development had been somewhat slower than that of the eight other children in the family. The mother had noted a dusky hue to the child's face following physical exercise but did not recall any real cyanosis.

Physical examination revealed evidence of considerable cardiac enlargement, and a loud systolic murmur and palpable thrill of maximum intensity in the second and third intercostal spaces along the left sternal border. Almost no pulmonic second heart sound was audible at this area. A distinct thrust could be felt over the entire precordium on systole. The general physical development was judged to be that of a child about three or four years younger.

Laboratory studies revealed a mild polycythemia, an arm to tongue circulation time of 20 seconds, and a venous pressure of 220 mm. of water. In the chest x-ray the right ventricle was seen to be greatly enlarged, obscuring the pulmonary artery. There was no increase in vascularity of the lung fields. The patient's electrocardiogram is shown on opposite page.

Following digitalization the patient was subjected to cardiac catheterization. A systolic pressure of 126 mm. of mercury was recorded in the right ventricle with an average pressure of only 10 mm. in the main pulmonary artery. When the tip of the catheter was pulled back from the pulmonary artery through the valve into the right ventricle the rise in pressure was abrupt, indicating a localized or "valvular" type of obstruction. The blood oxygen saturations in the various chambers of the heart were not remarkable, and that in the brachial artery was 95%.

With the diagnosis of congenital pulmonary stenosis the child was operated on the following month for surgical correction of the valvular defect. Under hypothermia, the body temperature being reduced to 26° C, the heart was exposed through a trans-sternal incision. It was observed to have a markedly hypertrophied right ventricle, with some enlargement of the right atrium and a post-stenotic dilatation of the pulmonary artery. Size of the pulmonary valve was estimated by palpation through an incision in the pulmonary artery to be about 3 mm. diameter; following valvulotomy it was possible to insert the finger into the right ventricle through the pulmonary valve. After several episodes of ventricular fibrillation requiring cardiac massage, injections of novocain into the ventricle, and electrical defibrillation a normal sinus rhythm was restored and the incision closed. The patient made a satisfactory recovery and was dismissed from the hospital on May 14, 1956 with an excellent prognosis.

*Electrocardiogram*—There is a moderate sinus tachycardia at the rate of 110. P waves are seen to be unusually prominent measuring more than 3 mm. in height in leads 1 and 2. The QRS axis is directed far to the right, pointing more toward the right arm (upright deflection in aVr) than the left leg. High R waves with inversion of T waves are present in all right precordial leads, with small R and deep S waves in V-5 and V-6. ST segment displacements of at least 2 mm. occur in several leads. The PR interval is at the upper limit of normal, measuring 0.20 sec., the QRS is of 0.08 sec. duration, and the intrinsicoid deflection of the R wave in V-1 (the time from onset of the QRS to peak of the R wave) measures about 0.04 sec.

*Discussion*—Seldom does one see such advanced right ventricular hypertrophy in pure form as illustrated in this electrocardiogram. Only the right side of the heart has undergone hypertrophy as a result of the long-standing obstruction at the pulmonic valve. There would be no reason to expect any enlargement of the left ventricle with this lesion—in fact, its work load would probably be decreased commensurate with the decreased cardiac output which probably accounts for the retarded physical development in these cases. Prolonged elevation of pressure in the right ven-

\*One of a series of clinical-electrocardiographic correlations. Purpose of this series is the presentation, not of necessarily rare or unusual ECGs, but of those which illustrate basic electrocardiographic principles or which contribute prominently to the clinical diagnosis.

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tricle (126 mm. of mercury as against a normal pressure of about 20-25 mm.) has given rise to considerable hypertrophy so that its wall thickness may equal or even exceed that of the left ventricle. To some extent this increased work load is passed back to the right atrium with consequent enlargement of that chamber also. It is not known why a post-stenotic dilatation often occurs in the pulmonary artery in the presence of the abnormally low pressure in this vessel distal to the obstruction.

Criteria for the electrocardiographic diagnosis of right ventricular hypertrophy vary. Perhaps the most reliable evidence is the delay in intrinsicoid deflection of the R wave in V-1 since this is a measure of the time required for depolarization to pass through the right ventricular wall. Normal values for this are on the order of 0.02 sec. Another criterion is height of the R waves in the right ventricular leads V-1, 2 and 3; while normally the R waves increase in amplitude and the S waves decrease as the electrode is moved from right to left across the precordium this sequence is completely reversed in this case so that lead V-6 resembles a normal V-1, and V-1 has the configuration expected in position V-6. Generally less reliable is the axis deviation observed in the standard leads since a vertically disposed heart may show right axis deviation without having actual right ventricular hypertrophy. Various rotations of the heart, particularly along its long axis, may alter these electro-

cardiographic findings somewhat. However, it is frequently possible to make a diagnosis of right ventricular hypertrophy by these criteria before the typical changes become apparent in the roentgenogram.

The tall pointed P waves which are commonly seen in this condition ("P pulmonale") develop with enlargement of the right atrium. Were it not for the upright P waves in lead I this tracing might be interpreted as indicative of dextrocardia because the QRS axis is almost identical to the axis in situs inversus.

In spite of the fact that electrical changes do not necessarily reflect mechanical changes in the heart, there is some justification for the concept of "ventricular strain" illustrated here by the displacements of the ST segments. Whether there is actual ischemia of myocardial tissue due to the inordinately high pressure in the right ventricle or not, the tracing shows a current of injury recorded predominantly over the right ventricle, commonly interpreted as evidence of "right ventricular strain". Also in these leads the T waves are sharply inverted, indicating that the direction of repolarization has become reversed in the right ventricular musculature, presumably because of increased thickness of the wall or increased pressure within the chamber or both.

It is probable that this patient's electrocardiogram will show considerable reversion toward normal within a matter of months following surgery.

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Medical history is often accused of dealing with "old theories." This reproach overlooks the fact that modern medicine, too, depends upon certain basic philosophical assumptions and scientific theories, even though it may not formulate them as clearly as its predecessors. These will be the "old theories" of tomorrow. Modern men, no less than men of former times, see only what they are prepared to see, and a new outlook is always needed in order to see something fundamentally new. Therefore it is a most

valuable feature of medical history that it makes us conscious of the important role of theories, for better or worse, at all times. The knowledge of old theories offers an additional advantage to the doctor in that many of his patients still cling to a variety of medical beliefs which can be traced to the Stone Age, the ancient Greeks, Paracelsus, or the Scotsman John Brown.

Ackerknecht—*A Short History of Medicine*



# DIOSPYROBEZOAR - A CASE REPORT

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## Summary

**B**ezoars are conerctions of various foreign or intrinsic substances found in the stomach and the intestines of both men and animals. There are three varieties. 1. Trichobezoars (hair-balls) also known as pilobezoars. 2. Phytobezoars (plant balls), and 3. Conerctions.

At the present time there are believed to be more than 400 cases of bezoars reported in the literature. About half of these are trichobezoars and 40% are phytobezoars. The phytobezoar caused by the persimmon ball is known as diospyrobezoar, and these formations compose approximately 80% of this group.

The symptoms of a phytobezoar are those related to the degree of gastric irritation or ulceration. The ball is formed immediately and the symptoms will soon follow. Ulceration of the wall may lead to gastric hemorrhage, perforation or obstruction. The balls have been known to pass through the stomach and obstruct the bowel lower down. The diagnosis is usually by roentgenogram and the treatment is the surgical removal of the bezoar.

This case concerns a sixty year old hunter, who being hot and tired ate a number of persimmons some of which were obviously unripe. That evening he developed abdominal symptoms associated with nausea and vomiting. After various studies, roentgenograms revealed the presence of the bezoar and surgical removal was successful.

## Trichobezoar

Hair-balls develop over a period of years and about 80% of them occur below the age of thirty and about 90% in females. They form from the habitual ingestion of hair but the precise etiology and pathogenesis is not clearly understood. It is generally believed that trichophagia, like other habitual body manipulations such as nail-biting, toe-biting

and tongue sucking represents an expression of personality maladjustment. Only 9% of DeBakey's and Ochsner's series<sup>3</sup> showed overt psychic or mental disturbances. Often mixed with the hair will be various threads, strings, beads and vegetable fibres. They are usually greenish-brown or black in color and are of various sizes and shapes. A east of the organ is common. They have an extremely nauseating odor due to the putrefaction and decomposition of the various foods and residues in the ball. Since they are developed by the constant ingestion of the hair, they are consequently laminated.

## Conerctions

These occur in less than five percent of bezoars and result from the imbibition of furniture polish, which consists of a strong alcoholic solution of shellac. Drinking water after this precipitates the resin and an accumulated mass occurs. They are found most often in painters, furniture workers, etc. Other conerctions result from the ingestion of various medicaments such as salol for cystitis, magnesium and sodium carbonate for peptic ulcer, and paraffin derived from some laxative preparations.

## Phytobezoar

The origin of this word is from the Greek "phyton" meaning plant. They consist of a variety of fibers, skins, seed, leaves, roots and stems moulded together. About 80% of the phytobezoars are formed from persimmons. The size and shape varies tremendously but the average is five to ten cm. by three to six cm. They are usually of a dark brown or black color, are smooth or pitted and are compact. Since they are formed on ingestion, they are not laminated and do not greatly increase in size, however they are commonly multiple.

"Diospyron" is the Greek word for "wild persimmons". In 1913, Izumi<sup>4</sup> proposed a mechanism for the formation of diospyro-

bezoars. He found that shibuol, a phlobatanin, was found in greatest amounts in the unripened persimmons and was in a soluble state. On contact with a weak mineral acid, as hydrochloric acid found in gastric juices, it became transformed into a sticky coagulum cementing into a ball, pieces of skin and other particles that may be present in the stomach. The ripe persimmon still contains some shibuol but it is found in largest quantities in the skin and calyx. The soluble shibuol accounts for the astringent taste of the persimmons, thus the ingestion of some slightly unripened persimmons, especially on an empty stomach with no food to interfere with the contact of gastric juices, predisposes to the formation of a bezoar. Other materials that have been said to form bezoars are cocoanut fibers, heather root, celery, pumpkin, skins and stems of grapes, prunes, raisins, leek, etc. Izumi et al<sup>4</sup> worked with 22 different fruits and only with persimmons could they get a bezoar.

Various studies by Izumi's group, DeBailey and Ochsner and Chont have been done in order to establish the relationship of gastric acidity to the formation of bezoars. It appears that the unripe persimmon will form bezoars in any strength dilute hydrochloric acid but not in water or an alkaline solution. DeBailey and Ochsner felt that hyper-secretion of hydrochloric acid was secondary to the mucosal irritation of the bezoar. The stronger the acid the more rapid and certain the formation of a bezoar and this accounts for their prevalence in farmers, hunters and outdoor workers who eat persimmons on an empty stomach.

In America the persimmon belt includes Kansas, Oklahoma, Texas, Illinois, Indiana, Ohio and Pennsylvania. In 1938 DeBailey and Ochsner reported 311 cases and Trondreau and Kirklin in 1950 reported 100 additional cases of bezoars. Over half of these cases were trichobezoars and about 40% were phytobezoars. As stated above about 80% of the phytobezoars are diospyrobezoars or those caused by unripe persimmons.

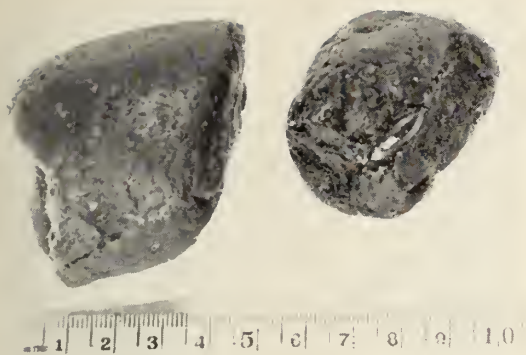
Most diospyrobezoars are found in male

farmers, especially in the latter decades of life. There are reported cases occurring at two years of age and seventy-eight years of age. About 70% occur after thirty years of age and 77% occur in men. Chont<sup>2</sup> states that children and negroes are almost immune to diospyrobezoar.

The symptoms of diospyrobezoar will depend on the degree of gastric irritation. The difficulty begins within 24 hours of ingestion of the persimmons and usually includes abdominal pains, tenderness, nausea, vomiting, etc. Later a mass may develop and if the time is prolonged, weight loss will develop. In one recorded series 50% of the patients had had symptoms for six months or over before seeking medical care. The gastritis may develop into a frank ulcer which may bleed, perforate or obstruct. In O'Leary's series<sup>7</sup> 71% of the cases had a gastric ulcer. Obstruction has occurred in the jejunum, ileum and rectum. In the discussion of O'Leary's paper, Dr. Pat Fite reported a case of a bezoar in a traction esophageal diverticulum in the middle third of the esophagus which was diagnosed as carcinoma. A gastrostomy was done and the patient progressively improved. Finally the bezoar passed from the diverticulum into the stomach, and then obstructed the jejunum.

The diagnosis is obviously suspected from the patient's history, however it is most often diagnosed by x-ray and fluoroscopic examination. The free mobility of the intra-gastric mass is diagnostic.

The treatment, obviously, is removal of the bezoar by enterotomy. Outten records the first successful surgical removal of a phytobezoar in 1894. In O'Leary's series<sup>7</sup> two patients had perforations of their gastric ulcer after the bezoar had been removed. Allen<sup>1</sup> reported a case of a man aged 71, with a perforating gastric ulcer which was closed as an emergency measure. His recovery was extremely slow and six months later a diospyrobezoar was discovered. It was then brought out that he had eaten persimmons fourteen months before this operation. One caution to the operating surgeon should be that diospyrobezoars are often multiple.



*Two Persimmon Balls Are Shown And A Seed Can Be Seen In The Smaller One.*

### Case Report

A. D. S., a white male sixty years of age was first seen by one of us (B. N. M.) in late December of 1955 complaining of abdominal pain and nausea of two week's duration. He indicated a rather sudden onset of his illness and stated that while hunting in the afternoon he "ate a bait of persimmons". Within an hour or two he was very uncomfortable all through the abdomen. There had been the prominent element of nausea with the heavy uneasy feeling in the lower abdomen. He had altered his diet to partake of various soft foods, mostly milk; and this also seemed to cause discomfort.

His family and past medical histories were irrelevant and his past general health had been described as good. He had never had any particular difficulty with indigestion. In August 1952, he had had a bilateral herniorrhaphy and a sub-total thyroidectomy.

The patient weighed 146½ pounds and was 69¼ inches tall. His blood pressure was 144/90. He appeared quite depleted and miserable but was not in any great pain. The skin and mucous membranes were of good color. There was no generalized lymph adenopathy and the oral hygiene was good.

There was a thyroidectomy scar and no cervical adenopathy. Chest expansion was adequate. The lungs were clear. The heart sounds were rhythmical without murmurs and with no enlargement. There were bilateral inguinal herniorrhaphy scars with good sup-

port. There was generalized abdominal tenderness, more marked in the lower abdomen. No abdominal masses or organs were palpable and rectal examination was negative.

After he did not respond to simple medicaments, roentgenograms by Dr. T. A. Pitts revealed a defect in the stomach which was of a questionable character. Re-examinations revealed freely movable foreign bodies in the stomach and the diagnosis of diospyrobezoar was made.

The patient was admitted to the Providence Hospital on January 10th, 1956, operated upon the next day and dismissed on January 18th. Through a transverse epigastric incision the stomach was exposed and opened. Two large phytobezoars were removed. There was a prepyloric lesser curvature ulcer about 1.5 cm. in diameter and markedly indurated. It was felt that this ulcer was due to the bezoar and it was not disturbed. The stomach wall was closed and the patient made a normal postoperative recovery.

Pathological report by Dr. H. H. Plowden stated that he had received two deep black-colored, smooth, irregularly shaped foreign bodies removed from the stomach. The larger of these masses measured approximately 5 x 4.5 cm. while the smaller measured 3.5 x 3.5 cm. The masses were firm in consistency and deep black in color and on the outer surfaces could be distinguished at least one seed from a persimmon and probably small fragments of persimmon skin.

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# PNEUMONIA IN VARICELLA IN THE ADULT

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It is a well established clinical observation that the infectious diseases of childhood may be unusually severe when they occur in the adult age group. In 1942, Waring, et. al.,<sup>1</sup> first called attention to the possible severe complications of the varicella viremia in adults and presented two cases of which one showed bronchopneumonia and encephalitis, and the other showed bronchopneumonia with pleurisy, congestive heart failure, toxic glomerulonephritis with azotemia. In the 14 year interval an additional 13 cases of varicella with complications by viremia have been reported.<sup>1-12</sup> Post mortem studies have demonstrated diffuse visceral involvement by varicella lesions which have explained the clinical complications that have been reported.<sup>1, 5, 7, 13, 14, 15</sup> Two additional cases of bronchopneumonia and visceral involvement by varicella are presented with discussion.

## Case Report

*Case 1.—Present Illness:* A 35 year old white stenographer was admitted January 17, 1954 in moderate respiratory distress. The patient gave a history of exposure to varicella (chickenpox) one month prior to admission. She experienced prodromal symptoms of malaise, anorexia, and fever 8 days prior to hospital entry. These were followed within 24 hours by successive crops of typical vesicles over the entire body, these became confluent over the face and shoulders. She was treated initially at home with aspirin for fever, phenobarbital for sedation, and tetracycline 250 mg. every 4 hours. She became progressively more ill, developed high fever, severe cough and chest pain. Eight days after the vesicular eruption she was dyspneic, with definite cyanosis of lips and nail beds. She also developed dysphagia, moderate pain over both lumbar areas and chest pain accentuated by deep breathing or coughing.

*Past history:* She had been known to be a labile hypertensive for 5 years. Blood pressure readings varied between 140 to 170 systolic and 90 to 100 diastolic. Her review of systems was non-contributory. A chest roentgenogram made on March 15, 1952 revealed normal lung fields and a normal heart size.

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*Physical examination:* Temperature 101.4°, pulse 92, respiration 30, blood pressure 170/80.

The patient was poorly nourished and developed, apparently middle-aged, white female, in moderate respiratory distress, with shallow, rapid respirations. There was some cyanosis of the lips and nail-beds. There was a generalized vesicular, crusting, erythematous skin eruption in various stages of breakdown over the entire body, densely confluent over the face. There were no lesions noted on the palms or soles. There was a generalized shotty lymphadenopathy. There were scattered vesicles over the palate and pharynx. The larynx showed only slight erythema. There were a few vesicles noted in the nasal mucosa. Expansion of the chest was limited bilaterally. There were diffuse, moist rales throughout both lung fields. The percussion note was resonant throughout. The cardiac rhythm was regular. There were no murmurs heard. No demonstrable cardiac enlargement was detected. The remainder of the physical examination was within normal limits.

*Laboratory data:* RBC 3.92 million, Hgb. 13.5 gm., WBC 4,100, 74% polys, 23% lymphs, 3% monos. Urinalysis: Specific gravity 1.016, reaction acid. A trace of albumin. Microscopic: Occasional WBC and RBC. Sputum: Negative for acid fast bacilli.

*Hospital course:* The patient was given oxygen by nasal catheter at 7 liters per minute, steam inhalations, aspirin for pain. Tetracycline was continued in increased dosage of 500 mg. every four hours, and this dose was gradually reduced through seven days of her hospital stay. Her total dosage in the hospital was 14.5 gm. She remained cyanotic at rest for 48 hours, and then was cyanotic only on prolonged coughing for the following 24 hours. She continued to complain of severe substernal pain, accentuated by coughing or movement. An electrocardiogram taken on the second hospital day showed a right axis deviation, with right bundle branch block, and sinus tachycardia. This was repeated on the fourth hospital day and was essentially unchanged. She became afebrile for the first time on the fifth hospital day, and following this gradually improved, with lessening of cough and chest pain. Her sputum became less tenacious and colorless. Physical examination of her chest revealed only fine moist rales throughout both lung fields, and there were no physical findings of consolidation at any time.

She was discharged as improved seven days after hospital entry. Roentgenograms of the chest on February 10, 19, and 26 and on March 19, and April 23 showed gradual clearing of the widespread miliary and sub-miliary deposits. The last film obtained re-

## CASE 1



(1) On admission



(2) Almost complete resolution three months later

vealed miliary deposits with more generalized fibrosis. Follow-up electrocardiograms were obtained on the same date as her x-ray studies and these revealed a persistent right bundle branch block, with no other essential change. The skin lesions healed slowly but at least half of these left punctate depigmented scars, easily visible one year after recovery.

### Case Report

**Case 2.—Present Illness:** A thirty-one year old colored female (gravida IV, para III, abortions 0) whose last menstrual period was May 31, 1955 was admitted Dec. 14, 1955, with chief complaint, "Can't breathe." Fourteen days after exposure to her son's chickenpox the patient noticed a rash on her hands. This rapidly became vesicular in type and spread in successive crops over her body, particularly the face. A day following the rash the patient began having moderate respiratory distress with a cough productive of thick, white, tenacious sputum. Also she became anorexic, developed nausea, and vomiting. She experienced one definite episode of fever and chills lasting approximately 5 minutes. She came to the emergency room

early the following morning in obvious respiratory distress and appeared quite toxic.

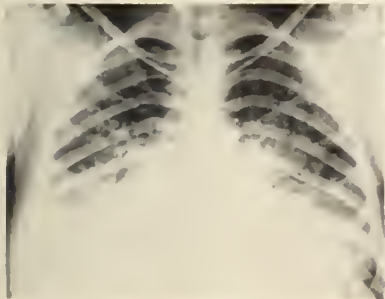
**Past History:** Mumps, measles, scarlet fever, pertussis as a child. Treated for syphilis in 1947 with penicillin. No follow-up studies done.

**Physical examination:** Temperature 100°, pulse 130, respiration 40, blood pressure 110/60.

A pregnant, obese colored female in moderate respiratory distress with rapid, shallow breathing.

Vesiculopapular rash in various stages of breakdown over upper one-half of body. Generalized shotty lymphadenopathy. There were erythematous papules noted on oral mucous membranes and soft palate. Limited expansion of the chest bilaterally; shallow, rapid respirations. Diffuse fine moist rales throughout both lungs, with greatest concentration left lower lobe posteriorly. No dullness to percussion. Sinus tachycardia, no murmur or cardiomegaly detected. Uterus six inches below xiphoid. Fetal heart tones 130 per minute in the left lower quadrant. The remainder of the physical examination was within normal limits. **Admitting Lab. Work:** Urinalysis—negative. RBC 3.9

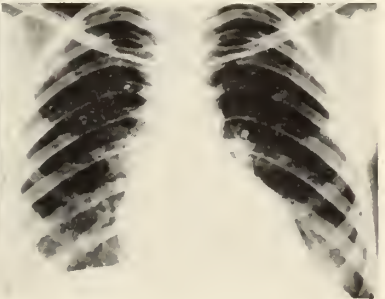
## CASE 2



(1) On admission



(2) At height of involvement



(3) Near resolution three weeks later

million, hgb. 12.0 gm, WBC 9,850, with differential of 90 polys. and 10 lymphs. Sick cell preparation negative for 72 hours.

*Blood chemistry:* BUN 14, fasting blood sugar 118, blood chloride 470 mg., serum sodium 316 mg., serum potassium 15.2 mg., per 100 ml. carbon dioxide combining power 36 volumes %, Wasserman and Kline negative. Sputum: Gram stain—occasional gram negative cocci.

*ECG*—Sinus tachycardia, non-specific ST elevation I, AVL, and V6.

*Chest:* Extensive bronchopneumonia.

*Hospital course:* The patient was given symptomatic care—oxygen by nasal catheter (7 liters per minute), steam inhalations, aminophylline suppositories 0.5 gm. every 6 hours, and intravenous fluids to correct mild acidosis and dehydration. She was given 600,000 units of penicillin b.i.d. initially and received a total of 7,800,000 units of penicillin over an eight-day course. In addition, she was given 5 ml. of gamma globulin deep intramuscularly in each buttock on the second hospital day. The patient continued in moderate distress for the first 24 hours, at which time she went into active labor. Six hours after onset of labor she was delivered of an estimated 2 lb. 8 oz. boy who was immediately placed in an incubator. Analgesia for delivery was a pudendal block, 1% Novocaine. The patient was in severe respiratory distress following delivery and appeared to be approaching a crisis. A staff conference resulted in a decision to give intravenous cortisone only if the blood pressure began to fall; to withhold tank respirator and tracheostomy until respiratory failure was imminent or she was unable to handle her secretions. The patient remained in a rather precarious balance for 8 hours. The blood pressure remained stable and the respiratory rate gradually diminished from a high of 100 per minute to 40 per minute. The patient made a gradual, uneventful recovery over the next 7 days. She was discharged asymptomatic and afebrile. Serial roentgenograms show a return to normal in six weeks. The premature infant died 3 days following delivery. Autopsy showed incomplete expansion of the lungs with atelectasis. Microscopic examination did not demonstrate intracellular inclusion bodies.

#### Discussion

Although the basic lesion of varicella, the vesicle and the crusted pustule are supposed to heal completely without scarring in the absence of secondary infection, this is not true in severe cases. The skin lesions healed slowly in one of our cases, (Case 1), but at least one-half of them left punctate depigmented scars, easily visible one year after recovery.

As shown in previously reported cases, the lung may be involved in a miliary spread, with a roentgenogram indistinguishable from that of miliary tuberculosis. The roentgenograms

of our two patients show that resolution is slow but is probably nearly complete with minimal scarring by fibrosis. The extensive involvement of the lungs during the acute phase is the most characteristic complication of varicella in the adult. The patient shows rapid, shallow breathing insufficient for oxygen requirements, leading to cyanosis which may be severe. Likewise the hyperventilation with loss of CO<sub>2</sub> causes respiratory alkalosis which is persistent until significant resolution has taken place. The cyanosis persists despite oxygen and aminophylline therapy until the crisis is past and resolution begins.

The cardiovascular system perhaps is affected directly by varicella lesions, and certainly indirectly by hypoxia secondary to pulmonary involvement. Congestive heart failure in a previously normal male was diagnosed clinically by Rosecan<sup>10</sup> and proven by elevated venous pressures which responded to digitalization.

Two other cases were thought to be in congestive heart failure and were digitalized with some improvement in cardiovascular status.<sup>1, 5</sup>

Case 1 showed a right bundle branch block on ECG at the height of her illness. This right bundle branch block has persisted to date. Unfortunately we do not have an ECG taken prior to her illness. This may well represent a varicella lesion and subsequent scarring of the myocardial conduction tissue. If so, future reports may bear out this speculation as a type of complication with varicella viremia. However, autopsy studies have not as yet demonstrated direct varicella involvement of the myocardium or its conduction tissue.

The keystone of treatment in varicella, with or without complications, is bedrest with adequate sedation, attention to diet and fluid intake. In the event of varicella with visceral complications in the adult, careful bedside observations with individualized treatment is imperative. The constant feature of diffuse viral pneumonia with secondary cyanosis requires moist oxygen and is helped by steam inhalations and vaporizing agents such as sodium lauryl sulfate or Alevaire. The cyano-

sis produces hyperventilation with respiratory alkalosis which is persistent until resolution. Also with cyanosis, further cardiovascular decompensation may ensue which requires supportive therapy. We believe that digitalization is indicated in acute cor pulmonale that does not respond to oxygen therapy, and is mandatory if decompensation progresses to congestive heart failure. Further, if shock should occur or intervene, then steroid therapy, either ACTH or cortisone, is indicated; otherwise, the steroids are of doubtful value. At present there is no antimicrobial specific for systemic viremia.<sup>16</sup> Although tetracycline was reported as being helpful in varicella earlier,<sup>11, 6</sup> recent reports deny this.<sup>9, 10</sup> In our case in which Achromycin (tetracycline) was used at therapeutic levels it did not shorten or ameliorate the natural course of the disease. Aureomycin and other antimicrobials may prevent secondary infection, particularly of the skin lesions.

It is impossible to determine either clinically or by autopsy findings whether cyanosis or direct involvement by intracellular inclusion bodies is a more toxic agent to the viscera. All cases reported had either moderate or severe cyanosis, usually early in the disease. Necropsy

specimens have shown intracellular inclusion bodies in the skin, lungs, thymus, brain, kidneys, esophagus, bile ducts, ureters, pancreas, adrenals, and spleen.<sup>5, 7, 13, 14, 15</sup> Visceral involvement as seen in clinical complications are shown in Table 1.

TABLE 1  
*Complications in 17 Cases of Varicella*

No.	Author
17	Pneumonia with cyanosis 1 - 12
3	Shock 5, 8, 10
3	Congestive heart failure 1, 5, 10
4	Azotemia 1 (both cases), 5, 8
1	Nephritis 3
2	Encephalitis 1, 5
1	Laryngeal spasm 2
3	Pleurisy 1, 2, 8
1	Orchitis with testicular atrophy 4
4	Death 1, 5, 7, 8

Summary

1. Two cases of varicella in adults with viral pneumonia are presented.
2. Tetracycline did not alter the natural course of varicella.
3. Treatment of varicella in adults remains symptomatic and particular attention should be directed toward correction of cyanosis.

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# DIAGNOSIS AND TREATMENT OF CARCINOMA OF THE CERVIX

PAUL A. WOOD, M. D. AND LAWRENCE L. HESTER, JR., M. D.  
Charleston, S. C.

This is a report of the results of treatment of invasive carcinoma of the uterine cervix in patients seen at the Cancer Clinic of the Medical College of South Carolina. Carcinoma of the cervix is second only to carcinoma of the breast as the most common type of genital malignancy in the female, and must be considered as one of the leading causes of death among women. The ratio of cervix to corpus carcinoma is still high in our clinic, twenty to one, as contrasted with the relatively high incidence of corpus carcinoma recently reported by several clinics.<sup>1, 2</sup>

**Symptoms:** The symptom given most often was abnormal vaginal bleeding. Pain was the next most frequent, but was usually associated with advanced disease. Vaginal discharge, often foul or bloody, was the third prominent symptom. Urinary symptoms were the presenting complaint in a few patients. The duration of symptoms prior to diagnosis or treatment was quite long in some cases, up to two years in fact. Patient delay of at least several months was the usual finding, and in some cases there was a delay of an appreciable duration on the part of the initially consulted physician.

**Method of Diagnosis:** Diagnosis is made only by biopsy, and no case is treated now unless a definite diagnosis is made pathologically of invasive carcinoma, no matter how obvious the lesion. No case is treated on the basis of exfoliative cytology alone, although cytologic examination is a very valuable method of screening patients who have no visible lesion. In our old records we found one case treated with radium for carcinoma, when granuloma venereum (granuloma inguinale) was the probable correct diagnosis; another patient was treated with radium for intraepithelial carcinoma, and another was treated elsewhere with inadequate irradiation without a biopsy. Benign granulomatous lesions can resemble

carcinoma remarkably well.

**Age Incidence:** The ages of our patients ranged from 19 to 87 years. Carcinoma of the cervix is not limited to the so called "cancer age", although it is most often seen in patients in their forties.

**Parity:** Multiparity was fairly common among these patients, but we have no comparable control group to use for comparison. We have no way of determining if cervicitis or cervical lacerations were present prior to development of carcinoma.

**Clinical Classification:** We use the standard League of Nations staging for our cases.<sup>3</sup> The stages are defined as follows: Stage I includes those lesions limited to the cervix, with no demonstrable parametrial or vaginal involvement. Stage II denotes involvement beyond the cervix but not to the pelvic wall, or involvement of the upper two-thirds of the vagina. Stage III cases have extension to the lateral pelvic wall or to the lower one-third of the vagina. Stage IV includes cases with involvement of the bladder or rectum, or metastases beyond the true pelvis. Staging is based on the findings at the time of the initial examination; if there is doubt about the stage, the lesser of the two stages is used. The stage is not changed if further extension is found at later examination or at operation. This staging is of value in planning therapy, in giving the patient or her family a prognosis, and especially in comparing results of therapy.

**Material:** This report includes all patients treated for carcinoma of the cervix at the Cancer Clinic of the Medical College of South Carolina between July 1, 1948, and June 30, 1954. This gives us two groups of patients, those followed for five years or longer, and those followed for less than five years, but longer than sixteen months. Survival and cure rates are computed as of November 1, 1955. We have included only those patients who received their original therapy through our

From the Department of Obstetrics and Gynecology and Cancer Clinic, Medical College of South Carolina.

clinic, since a number of patients have been referred after partial therapy, after recurrence, or after development of complications following therapy.

We have included patients who refused treatment, and those who failed to complete treatment. Failure to complete therapy was due to lack of patient cooperation, death while under treatment, or lack of an identifiable cervical canal. Patients lost to follow-up are presumed dead, and are included in our statistics. For purposes of comparing methods of therapy in Stage I cases, we have computed survival rates for the entire group and for only those who had complete treatment.

Methods of Treatment: With the exception of about one-half the patients with Stage I

carcinoma, patients were treated with irradiation and radium. The dosage of irradiation varied, but recently it has been fairly well standardized, at 8,000 roentgens externally (measured in air), delivered in divided doses over a period of about one month, with 2,000 roentgens being administered through each of four 6 x 15 cm. portals directed to the pelvis; factors used are 250 kv, half voltage layer 1.2 mm. copper, target skin distance 50 cm. In addition most of the patients received intravaginal irradiation, varying from 500 to 1,500 roentgens. Radium was inserted in such a fashion as to deliver approximately 8,000 roentgens at point A in the pelvis; this was accomplished in most cases by use of the Campbell applicator (Fig. 1) or a T-tube and two colpostats. The distribution of radium usually consisted of 30 or 40 mg. in the cervical canal and uterus, and 30 mg. in each lateral fornix of the vagina. In many cases with advanced lesions the radium was not satisfactorily inserted, and in a few cases the cervical canal would not admit the applicator.

Patients treated surgically had the so-called radical Wertheim operation, consisting of radical hysterectomy, partial vaginectomy, bilateral salpingo-oophorectomy, and pelvic lymphadenectomy. One case was treated by ordinary total hysterectomy because of a preoperative diagnosis of noninvasive carcinoma of the cervix. Since that experience we have done a conization of the cervix prior to hysterectomy for noninvasive carcinoma in order to confirm the diagnosis.

Complications: Our records are incomplete regarding the incidence of certain complications, so figures cannot be given. Those most commonly seen are irradiation proctitis, cystitis, and dermatitis, perforation of the uterus, rectovaginal fistula, vesicovaginal fistula, pyometra, irradiation sickness, stenosis of the vagina, and stenosis of the rectum. The Wertheim operation carries an appreciable incidence of urinary complications.

Results of Treatment: Results are given in the accompanying tables according to stage and time since treatment. Stage I cases are divided further according to method of treat-

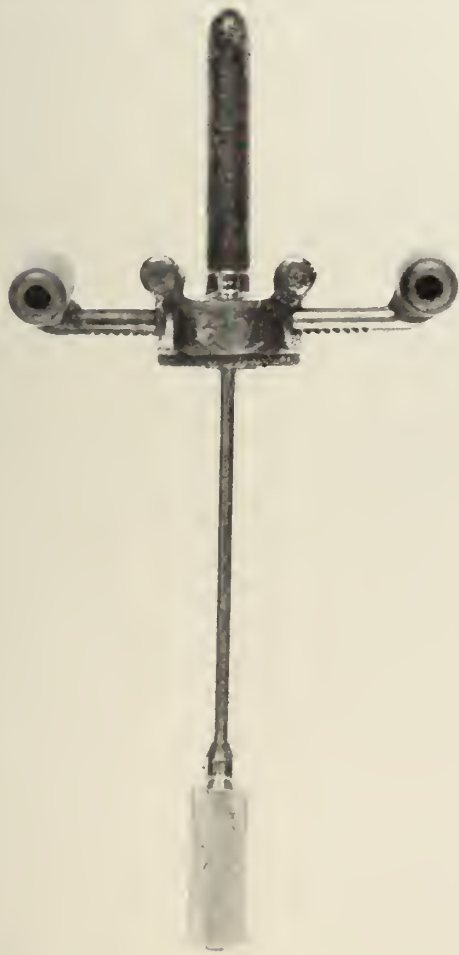


Figure 1.—Campbell applicator for radium, with arms fully extended.

ment, completion of treatment, five year survival without demonstrable recurrence, and five year survival with recurrence. Our survival rates compare favorable with those reported elsewhere, but the overall five year survival rate of 34% is not at all encouraging. The only hope of improving the survival rate appreciable lies in detection of cases at an earlier stage.

Not included in these statistics are several patients referred to this clinic after a hysterectomy had been done elsewhere for carcinoma. The five year cure rate in this group is zero.

It is now widely believed that invasive carcinoma is preceded by a noninvasive stage, and that this noninvasive stage may be present for several years prior to actual invasion. This intraepithelial carcinoma may present no symptoms, and its gross appearance seldom suggests malignancy. Only by routine examination of cervixes of normal appearance by Papanicolaou smears or biopsy can carcinoma be detected in a completely curable stage. The cure rate in noninvasive carcinoma is practically 100%, and the accepted treatment, hysterectomy, is far simpler than the radical surgery or hazardous irradiation required for invasive carcinoma.

Conclusions: We have presented the results of treatment of invasive carcinoma of the cervix at the Cancer Clinic of the Medical College of South Carolina, and have outlined our plan of therapy. Radium and irradiation are the preferred treatment, except in a few select cases with very early lesions. The five year survival rates are low in advanced cases, and only by earlier detection of cervical cancer can our overall survival rate be improved. The operation of total hysterectomy has no place in the treatment of invasive carcinoma of the cervix.

Table I—Stage I, treated more than 5 years ago.

	Radiation	Surgery	All Cases
Living without recurrence	12	10	22
Living with recurrence	2		2
Dead	8	3	11
Incomplete treatment (1)			(1)
Total Cases	22	13	35
5 year survival without recurrence	54.5%	76.9%	62.9%
5 year survival	63.7%	76.9%	68.6%
5 year survival after adequate treatment	66.7%	76.9%	70.6%

Table II—Stage I, treated less than 5 years ago, but more than 16 months ago.

	Radiation	Surgery	All Cases
Living	15	10	25
Dead or Lost	9	2	11
Incomplete treatment (2)			(2)
Total Cases	24	12	36
Surviving	62.5%	83.3%	65.8%
Surviving after adequate treatment	68.2%	83.3%	73.5%

Table III.—Stages II, III, and IV, treated more than 5 years ago.

	Living	Dead	Total Cases	Survival
Stage II	15	36	51	29.4%
Stage III	6	35	41	14.6%
Stage IV	1	9	10	10.0%

Table IV.—Stages II, III, and IV, treated less than 5 years, but more than 16 months ago.

	Living	Dead	Total Cases	Survival
Stage II	22	29	51	43.1%
Stage III	15	45	60	25.0%
Stage IV	0	10	10	0 %

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# A NEW TREATMENT FOR SEBORRHEA AND ALLIED SKIN CONDITIONS (FOSTEX)

A. M. ROBINSON, M. D.  
Columbia, S. C.

One of the most common dermatoses that we treat today is chronic seborrheic dermatitis of the scalp. This is a condition that requires continuous preventive treatment even after it has been cleared. Sulfur greases containing salicylic acid with resorcin had been used without much success before selenium sulfide was introduced.<sup>1</sup> The sulfur greases were disliked by the more fastidious patient who very often discontinued therapy before the desired results were maintained. Although selenium sulfide was an improvement over previous greasy ointments, it was not wholeheartedly accepted because of its qualities of toxicity. Fear of over-absorption was present. Other objectionable features of selenium sulfide were the persistence of excessive oiliness and the orange tinting of the scalps of grey-haired people.<sup>2</sup> A recent report warns of the possibility of diffuse hair loss<sup>3</sup> because of the use of selenium sulfide.

I have prescribed the use of Fostex cream and cake for seborrheic conditions of the skin and scalp in my office in approximately 120 cases during the past six months. The vast majority of the cases studied have indicated that this preparation is a non-toxic and efficient method of controlling these conditions. The ease of using a shampoo and cake skin cleanser assures the cooperation of the patient.

Fostex cream is massaged into the wet hair and scalp for 3 to 5 minutes and rinsed thoroughly. This procedure is then repeated to complete the shampoo. The shampoo is used every 3 or 4 days at the inception of treatment. The intervals between applications may be prolonged as the oiliness and scaling are reduced. Weekly applications usually suffice after two to four weeks of the initial treatment. The use of Fostex cream should be continued

on a periodic basis to prevent recurrence of seborrhea.

The cake is used as a soap substitute to wash the face. Both the cream and the cake consist of subulytic,<sup>4, 5, 6, 7, 8</sup> a combination of anionic soapless cleansers and wetting agents which have a profound anti-seborrheic action. Specifically, the anionic agents consist of sulfoacetate, sulfonate and sulfosuccinate, all of them employed in dermatology for years with a documented record of safety and tested for absence of toxicity, irritant and sensitizing properties. They are mildly antibacterial and keratolytic. Further action is provided by sulphur 2%, salicylic acid 2%, and hexachlorophene 1%.

In acne vulgaris associated with seborrhea, both Fostex cake and cream quickly dried the skin and were particularly helpful in cleansing comedones. They were effective in keeping the skin dry with peeling. On rare occasion the drying became too marked and it was necessary to discontinue this treatment temporarily.

## RESULTS OF THERAPEUTIC USE OF FOSTEX CREAM AND CAKE IN SEBORRHEIC DERMATITIS OF SCALP AND FACE OBSERVED OVER A SIX-MONTH PERIOD

Classification	Number Patients	Excellent	Good	Fair	Poor
Seborrheic Dermatitis of Scalp and Face	84	65	14	3	2
Seborrhea Associated with Acne	36	24	7	5	

### Summary

In a series of approximately 120 cases, I have observed Fostex to be a most satisfactory preparation for controlling seborrheic dermatitis of the scalp and face. It also proved to be efficacious as an adjunct in the treatment of acne vulgaris. Because of its lack of toxicity as

well as its simplified application this preparation is to be commended as a valuable addition to dermatological therapeutics.

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Fostex cream and cake used in this study was supplied by Westwood Pharmaceuticals, Buffalo, N. Y.

Notables

Entertainment



The President's Family



## PRESIDENT'S PAGE

The practice of medicine consists of more than the caring for individual patients. There is an obligation to the profession and the public which must be recognized. Physicians enjoy confidence and are accorded privileges on account of their special calling. They are looked upon as dedicated to public welfare to the exclusion of selfish interests, whether they be in private practice, a research laboratory, or in the service of a medical institution. To discharge their responsibility physicians, in addition to their special field of endeavor, should serve and express themselves through professional organizations which determine broad policies as regards practice and public relations, as well as raising the standard of medical care through education.

In addition to keeping up with the science of medicine the physician should keep abreast of medical thought as regards relations within the profession and with the public so as to promote healthy practice policies in the interest of public welfare. General practitioners constitute 80% of the members of the state association. Due to their close relationship with the public they are in a particularly favorable position to sense its needs and recognize problems in medical care. Their thoughts along these lines should be brought before the State Association by means of a resolution proposed by a county society or by direct communication with one of the standing or special committees. In this way they can be given more general consideration so that appropriate action can be taken, to the mutual benefit of the public and the medical profession.

William H. Prioleau

# Editorials

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## MEETING ACCOMPLISHED

It was a good meeting at Myrtle Beach. All went smoothly, business was transacted peaceably, programs proceeded pleasantly, and entertainment was ample without being overwhelming. Attendance was very good.

The delegates commended the Governor and the General Assembly on their service in the business of the naturopaths. The Bricker Amendment was endorsed and House Bill 7225 on Social Security was condemned. Fluoridation of water was endorsed. Many other matters were discussed and the resolutions and reports will be found in the minutes of the meeting, which will be published soon.

Dr. Lesesne Smith of Spartanburg was named president-elect for next year, and Dr. Richard Johnston of St. George was elected vice-president. There were few changes in other important positions.

Dr. Mayer in his presidential address made a studious analysis of the problem of distribution of doctors of various kinds in the state. His management of the meeting set an example of smoothness and efficiency.

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## MILITARY VETERINARIES

Since Secretary of Defense Wilson found that the Army and the Air Force had more veterinaries than they had animals, and recommended drastic reduction in the former, there has been a bit of a storm brewing. The AMA is backing the veterinary organization. The latter states that its primary responsibility is inspection of animal food products and that by reason of this function it serves to prevent the outbreaks of food poisoning which have been so disastrous in the military services in the past.

Most medical physicians have high regard for the veterinarian. In fact, more than one may be tempted at times to follow the example of Dr. Doolittle, a medical character well known to juveniles, and to desert the

difficulties incidental to the human patient in favor of the less complicated approach to the animals in Africa or some other chosen spot. Yet if the chief function of the army veterinarian is food inspection, why cannot his duty in this line be delegated to someone less highly trained and less expensive? It is doubtful that all our civilian food is veterinary-inspected, and we don't seem to have too many outbreaks of serious food poisoning.

The AMA has asked for more study of the situation. We should all know about it before we let our sympathies loose.

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## POLIO VACCINE

The giving of Salk vaccine seems to proceed at a lively pace in most parts of our state. A rumor has it that our fairly plentiful supply is the result of hesitancy in use in some other areas. Some patients are still repelled by the recollection of the early disaster with the vaccine, but confidence has mounted very considerably.

The practitioner is still kept in a somewhat dizzy condition by the rapid changes of advice as to giving two doses or three doses, or what the interval should be, or what age group the supply can be expected to cover. With all this, his activity is considerable.

The time has passed when the control of the vaccine should be centralized, and the physician will be happy when polio vaccine is just as much a routine as are the other common injections of childhood. The experience of this season should be enough to determine whether our high expectations are to be sustained or lowered.

A little extra confusion is added by recent reports that two doses or even one dose will give a satisfactory measure of protection, and by other pronouncements as to the duration of protection. For the safe estimate, we can wait to see the practical result rather than the outcome of titrations, and indications are all on the favorable side.

The three dose schedule still seems to be wise, and as for the time for "boosters", who knows? This uncertainty leaves the group of children who first took the vaccine in an undetermined status. Our impulse is to go ahead with three doses and an annual booster until the supply of vaccine fails or further study shows a better way.

## GREATEST SHOW ON EARTH

It may be time to take this name from the glittering spectacle of the circus and transfer it to the meetings of the AMA, especially since there is an increasing invitation to the public to view the marvels presented there. Even the "average man" should be as astonished by the transplanting of a kidney as he is by the bearded lady or the pinhead cannibal.

It is a healthy move to invite the public to witness the progress of medicine and the promise for the future. If only exhibits such as appear at our meetings could pursue the peripatetic path of the marvels of the circus, much more good would come to the public and the profession, even if the technique involved the use of some restrained ballyhoo and reasonable digestible refreshments.

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## MINUTES OF COUNCIL

MYRTLE BEACH, MAY 14, 1956

The first meeting of Council in conjunction with the Annual Meeting of the South Carolina Medical Association was held at the Ocean Forest Hotel at Myrtle Beach, S. C. on May 14, 1956. The meeting was called to order by the Vice-Chairman, Dr. Wyatt at 3:10 p. m. Shortly thereafter the Chairman, Dr. J. P. Cain took charge of the meeting and presided thereafter. All members of Council were present and in addition Mr. Francis Taylor, the newly appointed Public Relations Representative.

The minutes of the Special Meeting of Council of November 16, 1955 were read and approved.

Dr. J. H. Stokes, Treasurer, rendered his annual report which is to be presented to the House of Delegates.

Dr. J. I. Waring, Editor of the Journal, rendered his report which likewise is to be presented to the House of Delegates. Dr. Waring asked the opinion of Council as to whether or not advertisements for hard liquors should be accepted for the Journal and Dr. Gressette moved that Council advise the management of the Journal that advertisements of this type were not acceptable. After a motion to table was lost, the motion was passed by a vote of 10 to 5. The Secretary raised the question as to whether or not advertisements for beer were acceptable but the Chairman ruled this point out of order and directed the Secretary to look in minutes of previous meetings of Council regarding action on such matters.

The Secretary then presented his annual report, which was to be given to the House of Delegates in their regular session.

The Chairman of Council then called for a discussion of the attitude of the South Carolina Medical Association regarding the Social Security Bill, H.R. 7225, now pending in the United States Senate. It was discussed by Drs. Mayer, Guess, Wilson and Wyatt and a motion was passed to recommend to the House of Delegates, resolved: Whereas, the House of Delegates of the South Carolina Medical Association, as individuals and as a group, opposes the passage of the Social Security Bill (H.R. 7225) now under consideration in the United States Senate, in its provisions for reducing the age at which social security benefits for women begin, in allowing benefits for total disability, and in requiring compulsory social security coverage for unwilling professional groups; and

Whereas, there has never been an adequate, objective, unbiased study of the nature, cost and scope of the social security system and its economic, social and political impact on the American people; Now, therefore

BE IT RESOLVED, That the House of Delegates of the South Carolina Medical Association urge upon the Congress of the United States the creation of a well qualified Commission to make a thorough, ob-

jective and impartial study of the economic, social and political impact of social security, both medical and otherwise, and that the facts developed by such a study be the sole basis for an objective, non-political solution to the social security issue; and that

The Secretary be directed to inform the South Carolina members of the United States Senate and House of Representatives of this action, as well as Senator Byrd, Chairman of the Finance Committee; and that

Individual physicians be urged to inform their Congressional Representative of their feeling in this matter.

The President, Dr. O. B. Mayer, then rendered his annual report to Council which was likewise to be presented to the House of Delegates.

The Delegates to the American Medical Association, Drs. Weston and Johnson, reported to Council and Dr. Weston asked for instructions regarding a resolution pending in the AMA in regard to the dispensing of glasses and optical appliances by ophthalmologists. The Chairman ruled that no instructions could be given by Council to Delegates in any matters.

Dr. R. L. Crawford, Chairman of the Committee for the Medical Education Foundation, reported that the quota for physicians in S. C. amounted to approximately \$12,000 to \$13,000. He said that if each physician contributed \$10 this amount could be raised, and noted that some industrial foundations were withdrawing their support because of the lack of interest on the part of members of the medical profession. A letter had been sent to each individual member of the State Association requesting a contribution of 10 dollars for this foundation and a total of approximately \$650 to \$700 had been raised thus far. After discussion by Drs. Prioleau, Johnson and King it was moved by Dr. Stokes that the matter be referred to the Finance Committee with the addition of the President and the President-Elect, to report to the Council and to the House of Delegates their recommendations in this regard.

Dr. J. H. Stokes reported on the activities of his committee in the matter of the optometrist's bill in the recent session of the General Assembly and the Chairman ruled that this committee should be continued.

Dr. C. N. Wyatt, Chairman of the Committee on Civilian Defense reported in detail on the activities of his committee and made a number of recommendations:

1. That the Association approve legislative action to permit one of the deputy directors of Civilian Defense to be designated as the individual responsible for and in charge of all medical affairs, including physicians, hospitals, nurses, dentists, and pharmacists.

2. That each Councilor designate a specific individual physician in each county to be responsible for organizations for medical disaster relief.

3. That each large center in the state be urged to organize a mobile medical unit, to be available for service where and when needed.

4. That all hospitals be catalogued as to all their facilities available, not only their bed capacity, but their expansion capacity, water supply and all other necessary details, and that this information be made available to all concerned.

The Chairman ruled that the work of this Committee be continued and it was suggested that Dr. Wyatt be sent to the Civilian Defense conference at the meeting of the AMA on June 9th but he said that he would be unable to attend and Dr. Johnson, delegate to the AMA announced that he would be present at this conference.

The Executive Secretary, Mr. M. L. Meadors, rendered his annual report, and noted that the day coincided with the hearing before the Supreme Court in regard to the constitutionality of the Naturopathic Bill.

Dr. Julian Price spoke regarding the high percentage of Honorary Members on the role of the Association. It was noted that the Anderson County Medical Society had approved Dr. George T. Peel for Honorary Membership in the Association and Council confirmed this change in status.

Mr. Meadors asked for authority to renew the contract with the Veterans Administration for outpatient medical care for the next year and a motion to approve this was passed.

Mr. Meadors then read a letter in regard to non-payment of American Medical Association dues and said that a letter would be sent to all members in arrears by June 1st. This was received as information.

The Chairman then brought up the question of the Chiropractic Bill which had been introduced in the recent session of the Legislature and after some discussion it was moved to refer this to the Committee on Legislation with the request that they report at the fall meeting of Council their recommendations as to the policy of the South Carolina Medical Association in this regard.

The Secretary read a letter from Dr. W. P. Beckman, Chairman of the Commission on Mental Health, in regard to the proposed program for better liaison between the hospital, patients, and their families and recommending certain specific actions to improve these conditions. Dr. Hall, Superintendent of the State Hospital, and Dr. Beckman were present during this part of the meeting and spoke in regard to this proposal. Dr. Bachman Smith moved its approval, and recommended that the matter be referred to the House of Delegates for action; a motion to this effect was passed.

Dr. Bachman Smith questioned as to whether or not the Newsletter should be incorporated with the Journal and this matter was referred to the Editor and the Committee on Publications.

Dr. J. D. Gness, President of the Blue Shield Cor-

poration, gave his annual report and noted a number of changes in the By-Laws which would be presented to the Annual Meeting of the Corporation. Dr. Guess also commented on certain changes in policies which would be suggested in order to obtain some national accounts, and made a number of suggestions for nominations to the Board of Directors of the Blue Shield Plan. These were as follows:

To succeed themselves and serve until 1959,

Dr. Wyman King of Batesburg  
Dr. John A. Siegling of Charleston  
Dr. J. D. Guess of Greenville  
Mr. M. L. Meadors of Florence  
Mr. Wilton May of Greenville

In the event that the Corporation approves the changes enlarging the Board, the following nominations were suggested.

To serve until 1959.

Mr. Frank S. Adams, DuPont Company

To serve until 1958.

Dr. Charles F. Lemmon, Jr., Columbia

To serve until 1957.

Mr. J. M. Oeland, Darlington.

Council then gave its approval for these nominations.

The report of the Mediation Committee, Dr. Roderick MacDonald, Chairman, was read and received as information.

The Secretary reported that the South Carolina Society of Obstetrics and Gynecology had nominated Dr. Lawrence L. Hester, Jr. as Chairman of the Maternal Welfare Committee for the next year. A request from Dr. Hester for an appropriation for secretarial work was received and referred to the Finance Committee for consideration for inclusion in the budget for next year.

The Secretary read a letter in regard to the plight of the Library of the Armed Forces, formerly the Surgeon-General's Library, requesting action by the Association for help in securing the passage of a bill now pending in Congress. Council approved this and referred the matter to the House of Delegates for final action.

A letter from Dr. Dickson was read, noting the action of the Abbeville County Medical Society in regard to some commercial industrial insurance policies and selling claims by agents. At the request of the Chairman this matter was referred to the Committee on Insurance for consideration and later report.

A letter from Dr. G. S. T. Peebles, State Health Officer, was read in regard to a proposed act for the control and treatment of narcotic addicts. This was approved by Council and referred to the House of Delegates for further consideration and action.

A letter from the Albemarle County Medical Society of Virginia was read including resolutions in regard to safety measures in driving and proposed legislation in regard to driving under the influence of intoxicating liquors. This was approved on motion of Dr. Weston and the matter referred to the House of Delegates for consideration and action.

The Secretary was directed to prepare a resolution

for presentation to the House of Delegates commending the Governor and the General Assembly for their action in the passage of the bill outlawing the practice of naturopathy. The following resolution was then adopted.

BE IT RESOLVED, that, on behalf of the public and in the interest of their better health, the House of Delegates of the South Carolina Medical Association commends to Governor and the members of the General Assembly for their timely action in adopting the laws outlawing the practice of Naturopathy in the State of South Carolina; and that

The Secretary of the Association be directed to inform the Governor and the members of the General Assembly of this action.

The Secretary again presented to the Council the matter of participation and support of the Science Fairs, held in various parts of the state. Council gave its approval to this and referred the matter to the Finance Committee for possible inclusion in next year's budget.

It was announced that the President of the Alumni Association would officiate and open the Annual Banquet and then turn it over to the President of the South Carolina Medical Association.

There was no further business to be considered at this time and the meeting adjourned at 7:10 p. m.

Respectfully submitted,

Robert Wilson, M. D., Secretary

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#### MINUTES OF COUNCIL

MYRTLE BEACH, MAY 15, 1956

Council reconvened at 9:00 a. m. Tuesday morning, May 15, 1956. The meeting was called to order by the Chairman, Dr. Cain. Members present were Drs. D. L. Smith, B. Smith, Mayer, Guess, Stokes, Prioleau, Wyatt, Johnson, Wilson, Morgan, Crawford, Burnside, Gressette, Bozard, Gaines, Waring, King and Weston.

Dr. Cain outlined the various matters to be included in his report to the House of Delegates.

Council then made the following nominations to be presented to the House of Delegates. For Treasurer, Dr. J. H. Stokes.

Mediation Committee:

Third District—Drs. R. B. Seurry and Martin Teague.

Sixth District—Drs. Walter Mead and Sam Cantey.

Ninth District—Drs. J. H. Sanders and Harold Hope.

There was no further business at this time and Council recessed at 9:30 a. m.

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#### MINUTES OF COUNCIL

MYRTLE BEACH, MAY 16, 1956

Council reconvened on Wednesday morning, May 16, 1956 at 8:30 a. m. The meeting was called to order by the Chairman, Dr. J. P. Cain. Members present included Drs. Morgan, Bozard, Guess, Wyatt, King, Burnside, Waring, Weston, Gaines, B. Smith, D. L. Smith, Wilson, Crawford, Gressette and Mr. M. L. Meadors.

Mrs. Charles May, President of the Woman's Auxiliary, Mrs. Able, President-Elect, and Mrs. Orvin, Treasurer, presented their annual reports to Council.

The proposed changes in the make-up of the Legislative Committee were discussed and it was suggested that the House of Delegates be requested not to make any changes effective until the year 1957.

The question of the flouridation of the water supplies was discussed and this was endorsed in principle, this action to be recommended to the House of Delegates.

Dr. T. R. Gaines, Retiring Past President, commended Council for its work during the three years of his membership and paid his farewell; he was complimented by the Chairman, Dr. Cain, for his interest, enthusiasm and leadership during his presidency of the Association.

Dr. R. L. Crawford suggested that a dinner meeting for Presidents and Secretaries of County Societies be held at some time in Columbia, to inform them of the work of the Medical Education Foundation and its importance. This was approved, to be carried out without expense to the Association.

Council approved the distribution of banquet tickets to all visiting speakers. The Executive Secretary was so directed.

There was no further business and Council adjourned at 9:10 a. m.

#### MINUTES OF COUNCIL MYRTLE BEACH, MAY 17, 1956

Council reconvened at 8:30 a. m. on Thursday morning, May 17, 1956. The meeting was called to order by the Chairman, Dr. J. P. Cain. Members present included Drs. Guess, Prioleau, Crawford, Wyatt, A. R. Johnston, Morgan, Weston, Mayer, Wilson, D. L. Smith, B. Smith, Burnside and Fleming. Mr. M. L. Meadors, Executive Secretary was present. Also Mr. Francis Taylor, Publicity Director and Dr. W. W. King.

The following officers were elected for the year 1956-1957. Chairman, Dr. J. P. Cain. Vice-Chairman, Dr. C. N. Wyatt. Clerk, Dr. A. C. Bozard.

Mr. M. L. Meadors, Executive Secretary and Dr. J. I. Waring, Editor of the Journal were elected for a period of six months; it was decided that the tenure of these offices should coincide with the annual budget for the calendar year and henceforth elections for a full term would take place at the fall meeting of Council.

Dr. W. W. King submitted his resignation from the State Advisory Hospital Council, for the term ending September 17, 1957 and this was accepted with regret. Dr. R. L. Crawford was elected for the unexpired term and the Secretary directed to write to the Governor of this change.

The Chairman announced that he would write to the individual members of the Hospital Council ask-

ing of their interest in the work this committee and to report to Council before further vacancies were filled.

Dr. C. N. Wyatt spoke of the further work of the Civilian Defense Committee but no additional action was taken.

Dr. C. N. Wyatt reported to Council on the Committee appointed for the consideration of a memorial to Dr. W. B. Pressly and suggested that a plaque, suitably inscribed, be presented to the Medical College of South Carolina for erection in the College Hospital. It was moved that; a. This report be approved; b. That the Finance Committee be instructed to take care of all necessary expenses; c. That the Committee be continued until completion and that suitable exercises be arranged for presentation of the memorial to the Medical College. This motion was passed.

Dr. A. F. Burnside was appointed to the Civilian Defense Committee to replace Dr. D. L. Smith, incoming President-Elect.

Council noted that the next annual meeting of the Association would be held at Myrtle Beach and directed that the dates be fixed for the week of May 14 - May 16, 1956; should any conflict arise the Executive Secretary and the Chairman of Council were given power to act to make necessary changes.

Council then adjourned, to reconvene in the fall of 1956 or at the call of the Chairman.

Respectfully submitted,  
Robert Wilson, M. D., Secretary

#### PRESIDENT'S REPORT TO THE CORPORATION SOUTH CAROLINA MEDICAL CARE PLAN

May 15, 1956

Members of the Corporation:

The past year has been one long and at times frustrating period of reorganization and consolidation of gains. At our last annual meeting troubles could be hinted at only, because no one knew how bad they would prove to be. Our Plan was so intimately tied up with Blue Cross that our individual troubles were mutual problems. Blue Cross was under investigation by a task force from the Blue Cross Commission, its accreditation had been withheld, and because our financial records were kept by the Blue Cross office, and because our financial report, prepared by the joint accountant, was lacking in satisfactory controls, our own accreditation was postponed.

At that time a change in the executive directorship had already been determined upon by the Blue Cross Board, but the decision had not been made public. I participated in the discussions and was a party to the decision to make a change in executive direction.

The change was made first on a 60-day temporary basis, and then on a permanent basis. Mr. William Sandow, Jr. was selected to be permanent Executive Director. He came to us from the Rochester Hospital Service and Genesee Valley Medical Care Plans, with

headquarters in Rochester, New York. His work of reorganization has included the following, roughly in the order of their immediate importance and urgency:

The office administration (collections and credit records and controls, membership rolls, book-keeping and auditing, I. B. M. operation and control)

A study of group membership and the enrollment adequacy of each group, with either a bringing of each group up to our underwriting standards, or the abolishment of groups which would not or could not, come up to such standards.

A reorganization and expansion of the field representatives of the Plans.

Presently, an intensive study is being made of contract coverages, costs of such coverages, and the desirability of discontinuing certain contracts and the writing of new types. This study in turn involves a study of cost-experience of contract groups already operative and an attempt to anticipate cost-experience under new contract types.

A study has been made of the schedule of fee allowances. A revision has been completed on the sections dealing with the musculo-skeletal and the nervous systems. These will be included in a new edition of the Manual and Schedule of Allowances, when it is published. The delay in publishing a new edition has been due to the fact that this has waited on completion of revision of contractual coverages. We hope that we can complete preparation shortly, and get the new manual to press.

Experience studies have progressed far enough to show what groups have caused losses, what type of service has been responsible for losses, and to suggest remedies. These remedies will be instituted as soon as practical.

Our Plan has been asked to participate in servicing national accounts, which have covered groups within the State. A refusal of any one plan to participate in such accounts would destroy the opportunity of National Blue Shield to bid for such accounts and would throw that large field over to commercial companies without a struggle. We are laying plans to participate, and we are counting on our participating physicians to cooperate with the Plan in servicing such national accounts as are written.

The South Carolina Medical Care Plan began eight years ago from scratch. Its Board had no technical knowledge of operating a Blue Shield Plan. The Board has learned a lot. However, our growth was so phenomenal during the first six years that the Plan literally ran ahead of the Board and of executive management. Our objectives were too ambitious, proper and reliable controls were not had, new benefits were offered with no knowledge of their costs, new groups were formed but underwriting ratios of the number in the group to the number of employees were not regularly surveyed and maintained, non-group members were accepted with little regard to even nominal underwriting control.

That we have survived the hazards we have been exposed to because of our lack of knowledge and experience, and because of our desire to make Blue Shield benefits available to many is truly remarkable. We have survived with a small increase in assets. However, we believe that we are rapidly overcoming our long unrecognized problems of the past, that measures have been, or are being taken to correct them, and that in the future we shall be in a position to resume growth, with ambitious striving, not beyond our capabilities, and with the ability to recognize and to solve problems before they become dangerous to our existence.

J. DECHERD GUESS, M. D.  
President, Board of Directors

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## PRESIDENT'S REPORT TO COUNCIL SOUTH CAROLINA MEDICAL CARE PLAN

May 14, 1956

MR. CHAIRMAN and MEMBERS OF COUNCIL:

A copy of my report to the Corporation accompanies this report to the Council. In that report, I am recommending, at the direction of the Board, certain amendments to the Bylaws under which we operate, which if adopted, will increase the number of elected directors from 15 to 18, and in addition will add the following as ex officio members; namely, the President of the South Carolina Medical Association, the Chairman of the Council of the Association, and the President of the South Carolina Hospital Service Plan (Blue Cross).

These proposed changes will serve to broaden the base of Blue Shield, to more closely integrate it with the State Association, and to more closely correlate it with Blue Cross. It is the feeling of the Management that these are desirable objectives. The Plan belongs to the Association. Its operation has become more complex. There are increasing problems in connection with the fee schedule in relation to the trend toward higher professional fees charged our patients, and an increasing national demand for larger income limits for "full pay", or service benefits. These call for a more active participation by the Association in the crucial questions involved. A very important matter is now pending; namely, the participation of our Plan in writing and servicing national accounts, including that of government employees. To participate in these accounts will entail a broadening of benefits, an extension of service, or full pay, provisions with higher income limits, a restudy of membership charges, and because of these, a rewriting of participating physicians' agreements.

I sincerely hope that Council will approve the recommendations of our Board with regard to the Bylaw amendments, and that the Corporation will adopt them; and finally, that the Association President and the Chairman of Council will participate actively in the business of the Board.

Regarding the inclusion of the President of Blue

Cross as an ex officio member of the Board, something more should be said. Blue Cross has been from the beginning our administrative agent. It has collected membership dues, kept the accounts, serviced the groups, and sold the contract, under a formal agreement which has been altered from time to time. Negotiation of all national group accounts will include Blue Cross. Because of agitation throughout the country, there is a definite trend to separate benefits in pathology, radiology, and anesthesiology from Blue Cross and add them to Blue Shield. In regard to those benefits we are in a state of change, and in South Carolina the situation is mixed. Any changes will have to be bilateral. Furthermore, during the past twelve months of troubles mentioned in my report to the Corporation, Blue Cross and Blue Shield have worked together closely and in sympathy. I have been invited to sit in the Blue Cross board meetings and to participate in decisions made. I am frequently called upon for opinion and advice. Two of our most useful Board members are members of the Blue Cross Board. I believe that the closer integration of the two boards which will result from adding the President of the Blue Cross board to our board, just as the Blue Cross board has added our president to it, will be helpful to both Plans.

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It is the duty of Council to nominate men to fill both the vacancies which will occur by ending of terms of office tomorrow and to fill newly created vacancies which will be present if the proposed amendments of Bylaws are adopted.

By direction of our Board, I am going to suggest the following for your consideration:

- To succeed themselves, and to serve until 1959:
- Dr. Wyman King, Batesburg
  - Dr. John Siegling, Charleston
  - Dr. J. Decherd Guess, Greenville
  - Mr. M. L. Meadors, Florence
  - Mr. Wilton May, Greenville
- To serve until 1959:
- Mr. Frank S. Adams, DuPont Company
- To serve until 1957:
- Mr. J. M. Oeland, Darlington Mfg. Co. Darlington
- To serve until 1958:
- Dr. Charles F. Lemmon, Jr., Columbia
- J. DECHERD GUESS, M. D.  
President, Board of Directors

PROPOSED AMENDMENTS TO THE BYLAWS  
of the  
SOUTH CAROLINA MEDICAL CARE PLAN  
May 14, 1956

At the direction of the Board of Directors, I am proposing and recommending the adoption of the following amendments to the bylaws of the Corporation:

ARTICLE III, SECTION 1. The affairs, property, and business of the Corporation shall be managed by a Board of twenty-one (21) directors (changed from

fifteen), who may exercise all such powers of the Corporation as are not by law or by these bylaws required to be otherwise exercised. The directors need not be members of the Corporation (House of Delegates), but may so be.

The President of the South Carolina Medical Association, the Chairman of the Council of the South Carolina Medical Association, and the President of the South Carolina Hospital Service Plan (Blue Cross) shall be members, ex officio, of the Board of Directors, and each of them shall have the same duties, responsibilities, and privileges of regularly elected members.

Eighteen (18) members of the Board shall be nominated by the Council of the South Carolina Medical Association and shall be elected by the House of Delegates of the South Carolina Medical Association sitting as the Corporation.

At least ten (10) of the elected directors shall be Doctors of Medicine, licensed to practice in the State of South Carolina under the Medical Practice Act (Article VII of Chapter 121, Sections 5149 to 5167, of the Code of Laws of South Carolina), who are engaged in the active practice of medicine in this State.

At least two (2) elected members of the Board, in addition to the President of the South Carolina Hospital Service Plan, who shall be a member ex officio, shall be members of the Board of Directors of the South Carolina Hospital Service Plan (Blue Cross). Up to eight (8) of the elected members may be selected from either agriculture, labor, industry, commerce, or business.

ARTICLE III, SECTION 2. At the annual meeting of the Corporation in 1956, six (6) directors shall be elected to serve a term of three (3) years, one shall be elected to serve a term of two (2) years, and one shall be elected to serve a term of one (1) year (in order to increase the number of elected members from fifteen to eighteen and to fill vacancies caused by expiration of terms of office). At each subsequent annual meeting of the Corporation, six (6) members shall be elected for a term of three years and thereafter until their successors are elected.

ARTICLE III, SECTION 3. Any elected director may be removed from office for cause . . .

ARTICLE III, SECTION 4. Vacancies in the Board of Directors occurring because of resignation, death, or removal of any elected member between annual meetings of the Corporation shall be filled by the Council of the South Carolina Medical Association at a meeting duly called for such purpose. A favorable vote of those present shall be sufficient to elect.

ARTICLE III, SECTION 5. Eleven (11) directors, who are either present in person, or who are represented by proxy, shall constitute a quorum for the transaction of all business.

ARTICLE III, SECTION 6. The annual meeting of the Board of Directors shall be held within thirty (30) days after the adjournment of the annual meeting of the Corporation, and at such other regular times and at such places as the Board may determine.

Special meetings may be held in like manner and shall be called by the secretary of the Board whenever the president of the Board or any three directors shall so request . . .

ARTICLE IV, SECTION 2. There shall be a central professional service committee composed of the President of the Board, ex officio, and eight (8) other directors who shall be appointed by him from the medical doctors on the Board. The President of the Board shall designate the chairman of the committee.

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## ANNOUNCEMENTS

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### —ANNOUNCEMENT—

#### POST-GRADUATE MEDICAL SEMINAR CRUISE

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### Tentative Program

Sixth Annual Scientific Session  
of

The Staff of Self Memorial Hospital  
Greenwood, South Carolina  
Saturday, August 25, 1956

"Scapulo-Costal Syndrome"—A. A. Michele, M. D.,  
Assistant Professor Orthopedic Surgery, New York  
Medical College.

"Brain Injuries"—Edgar F. Fincher, M. D., Professor  
of Neurosurgery, Emory University.

"Fluid and Electrolyte Balance"—Kathleen Roberts,  
M. D., Memorial Hospital, New York.

"Curable Deliriums"—Eugene Stead, M. D., Profes-  
sor of Medicine, Duke University.

"Oral Manifestations of Systemic Disease"—E. Chera-  
skin, M. D., D. M. D., Department of Oral Medicine,  
University of Alabama.

Motion Picture: "Constrictive Pericarditis"

Presented by: Brooks Scurry, M. D. and R. E. Hunton,  
M. D.

Discussed by: Wiley N. Price, M. D. and George  
Dillard, M. D.

Panel Discussion: "Low Back Pain"

A. A. Michele, M. D., Edgar Fincher, M. D., Eugene  
Stead, M. D., James A. McQuown, M. D.

Entertainment and Barbecue: Greenwood Golf Club  
in the evening.

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### THE AMERICAN CONGRESS OF PHYSICAL MEDICINE AND REHABILITATION

The 34th annual scientific and clinical session of  
the American Congress of Physical Medicine and  
Rehabilitation will be held September 9-14, 1956 in-  
clusive, at The Ambassador, Atlantic City, N. J.

Full information may be obtained by writing to  
the executive secretary, Dorothea C. Augustin, Amer-  
ican Congress of Physical Medicine and Rehabilitation,  
30 North Michigan Avenue, Chicago 2, Illinois.

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The Department of Otolaryngology, University of  
Illinois College of Medicine, announces its Annual  
Assembly in Otolaryngology from October 1 through  
7, 1956. The Assembly will consist of an intensive  
series of lectures and panels concerning advancements  
in otolaryngology, and evening sessions devoted to  
surgical anatomy of the head and neck and histo-  
pathology of the ear, nose and throat.

Interested physicians should write direct to the  
Department of Otolaryngology, 1853 West Polk Street,  
Chicago 12, Illinois.

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### PAN-PACIFIC SURGICAL ASSOCIATION

Seventh Congress

Honolulu, Hawaii

November 14-22, 1957

The Seventh Congress of the Pan-Pacific Surgical  
Association will be held in Honolulu, Hawaii Novem-  
ber 14-22, 1957. All members of the profession are  
cordially invited to attend and are urged to make  
arrangements as soon as possible if they wish to be  
assured of adequate facilities.

An outstanding scientific program by leading sur-  
geons with sessions in all divisions of surgery and  
related fields promises to be of interest to all doctors.

Further information and brochures may be ob-  
tained by writing to Dr. F. J. Pinkerton, Director  
General of the Pan-Pacific Surgical Association, Room  
230, Young Building, Honolulu, Hawaii.

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## WOMAN'S AUXILIARY

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Mrs. Able, Dr. Mayer, and Mrs. May



DR. A. R. JOHNSTON  
NEWLY ELECTED VICE-PRESIDENT

A. R. Johnston, M. D., was born January 19, 1914. He graduated from St. George High School (1929), from Wofford College (1932), and from the Medical College of Virginia (1936). He interned at Sheltering Arms Hospital, Richmond, Va., 1936-1937, and has been in general practice in St. George, S. C. since 1937.

He is a member of The Dorchester County Medical Society, The Coastal Medical Society, The First District Medical Society, The South Carolina Medical Association, The South Carolina Chapter of The Academy of General Practice, The Association of Surgeons of the Southern Railway, and The American Medical Association.

From 1937 to 1949 he was secretary of The Coastal Medical Society and president of that society from 1950-1951. He became president of the First District Medical Society in 1952. He has been a member of The State Board of Medical Examiners since 1945, Delegate from Dorchester County Medical Society to the S. C. Medical Association since 1942, local surgeon for The Southern Railway System since 1947. He was also third vice-president of The Association of Surgeons of The Southern Railway System in 1953.

Dr. Johnston was chairman of the Board of Stewards of St. George Methodist Church 1955-1956 and a member of the Board since 1937. He was chairman of The Upper Dorchester County Red Cross Chapter 1950-1954, president of The Dorchester County Tuberculosis Association 1947-1951. In addition he has been Examining Physician and Medical Advisor for The Dorchester County Selective Service Local Board No. 1 since 1941, secretary of The Board of Trustees of St. George School District No. 1 1953-1954, president of The St. George P. T. A. 1951-1953 (two years) and president of the Business Men's Club 1946-1947.

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## NEWS

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Dr. M. S. Moore of Charleston wishes to state that he has not retired as was announced in the latest directory.

The April 1956 meeting of the Coastal Medical Society was held at Beaufort, S. C. The paper was by Dr. J. C. Metts of Savannah: "The Management of the Cured Coronary Patient."

Dr. R. W. Hancel, Jr. has been elected president of the Charleston County Wildlife Federation.

Dr. L. Charles Bailes was retained as county physician by the Greenville County Board of Commissioners in regular session on May 1.

Dr. Bailes will be paid a set fee for each call, instead of the usual salary for the county physician.

Dr. George T. Peel, who was serving as county physician, has been ill for some time.

Dr. H. Grady Callison, Anderson County Health Officer, has been appointed to the Council on Public Health and Education, an important division of the American College of Preventive Medicine.

At a meeting of the Industrial Medical Society of South Carolina held at the Ocean Forest Hotel on May 17, 1956, the following officers were elected: J. L. Hughes, Greer, president-elect; J. T. Assey, Georgetown, vice-president; C. B. Hanna, Spartanburg, secretary; and F. H. Stelling, Greenville, treasurer. Dr. Frank Owens of Columbia took over as president, from Dr. I. Crier Linton of Charleston, retiring president.

Inquiries by new members should be submitted to the secretary.

Dr. R. W. Mance, physician, retiring member of the Columbia Planning Commission, was honored by

Mayor J. Clarence Dreher, Jr., who presented a certificate of service at the April 18 meeting of City Council in the City Hall.

Dr. John M. Shingler, who was associated in the practice of medicine in McCormick with Dr. C. H. Workman; has left for Fort Sam Houston, Texas to report for active duty with the Army.

Dr. Shingler first came to McCormick last summer after graduating from medical school. He is the son of the Rev. John M. Shingler, superintendent of the Greenwood Methodist District.

Dr. Cyrus W. Anderson of Denver, Colorado, was chosen 1957-58 president-elect of the Association of American Physicians and Surgeons.

Approximately 225 doctors from 40 states attended the group's 13th annual meeting in Columbus, Ohio, April 5-7.

A new member of the board of directors was Dr. Thomas G. Goldsmith, Greenville, S. C.

Harleyville, which for years had no resident doctor, has one now, Dr. L. F. Behling.

Dr. Behling has set up his office in the Harleyville Pharmacy.

Dr. Behling attended the University of South Carolina and graduated from the Medical College in Charleston. He interned at Roper Hospital, Charleston, and served as resident physician there for two years.

For the first time, a Negro doctor has been admitted to practice in Oconee Memorial hospital.

Dr. Charles Battle was elected to membership on the Medical staff in May, according to Hospital Administrator Milton Snipes.

Dr. Battle's appointment was recommended by the staff and approved by the Hospital board. He has been in general practice in Seneca for two years.

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## STATE BOARD OF HEALTH

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May 30, 1956

### POLIOMYELITIS VACCINATION COMMENTS

*Age Priority:* The age priority groups to receive polio vaccine purchased with public funds in South Carolina has been revised to include all individuals 0-19 years, inclusive, and pregnant women of any age. It must be pointed out however that no one is eligible to receive vaccine purchased with public funds who has reached 20 years of age or above unless she is pregnant. The appropriation act providing public funds for purchase of vaccine limited these funds to individuals under 20 years of age and pregnant women. Supplies of vaccine are being released through commercial channels for all those of any age not eligible to receive public vaccine.

*Summer Vaccinations:* The U. S. Public Health Service, with the advice of its National Advisory Committee, recommends that vaccinations be continued through the summer, "even during periods of rising incidence of poliomyelitis to assure maximum protection. Evidence accumulated during 1955 supports this conclusion." It will, therefore, be the policy in South Carolina to continue the vaccinations through the summer. Emphasis should be placed on giving first and second doses to as many children who have not received any vaccine until a high percentage of these children have been inoculated.

*Dosage:* The recommended dosage continues to be two inoculations of 1cc each, intramuscularly, 2 to 6 weeks apart, and a third or booster dose not earlier than 7 months after the second dose. The booster dose will still give good results when given 10 to 12 months, or possibly longer, after the second dose. If the supply of vaccine is available, third doses may be given to children whose parents voluntarily bring them to the office. Active campaigns should be limited to getting two doses into those children in the susceptible age groups until a high percentage of these groups have received at least two doses.

*Testing of Vaccine:* The Public Health Service is continuing to test all lots of vaccine produced in accordance with the revised standards of testing.

*Vaccine Supply:* The production of polio vaccine has been increased within recent months and it may be anticipated that more frequent releases will be made during the remainder of this year. This will make it possible for physicians and Health Departments to administer the vaccine without reserving second doses for their patients.

G. E. McDaniel, M. D., Director  
Division of Disease Control  
State Board of Health

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*Solitary Non-parasitic Cysts of Liver*—George V. Rosenberg (Abbeville)—Am. J. Surg. 91:441-444, March 1956.

Only about 250 of these cysts have been reported. They are usually located near the gall bladder and vary in size from small, to one which contained 17 liters of fluid. Reported here are two cysts, one small, in a young woman, the other the size of a basket ball, in an old woman. The smaller cyst was treated by marsupialization and instillation of formalin, and recurred in two years. It was subsequently treated by radical excision. Treatment failure was due to the multilocular nature of the cyst, which is characteristic. Due to this, in good risk young patients radical resection is necessary to effect cure. Marsupialization plus formalin is still considered satisfactory for poor risk patients.



# Nilevar\*

(BRAND OF NORETHANDROLONE)

## Searle's New and Practical Steroid Specifically for Protein Anabolism—

It has long been recognized that a substance which would promote protein anabolism would be of inestimable value in therapy. The androgens have this property, but unfortunately they also exert actions on secondary sex characteristics. These effects are commonly undesirable in therapeutic programs.

**THE FIRST STEROID WITH ANABOLIC SPECIFICITY—**Nilevar, the newest Searle Research development, therefore, meets a long desired clinical need because Nilevar presents the first steroid primarily anabolic for protein synthesis. Moreover, Nilevar is without prominent androgenic effects (only about one-sixteenth of that exerted by the androgens).

**OBJECTIVE AND SUBJECTIVE RESPONSE —**Orally effective. Nilevar therapy is characterized by retention of nitrogen, potassium, phosphorus and other electrolytes in ratios indicative of protein anabolism. Moreover, subjectively the patient observes an increase in appetite and sense of well-being.

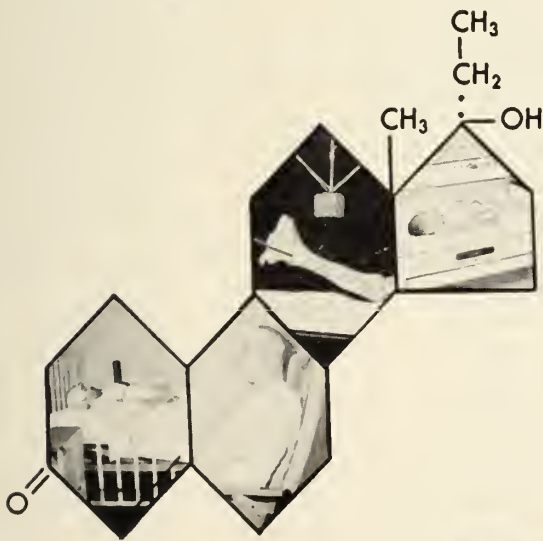
**WELL TOLERATED—**Nilevar has an extremely low toxicity. Laboratory animals fail to show toxic effects after six months of continuous administration of high dosages. Nilevar should not be administered to patients with prostatic carcinoma. Nausea or edema may be encountered infrequently. Slight androgenicity may be evidenced on high dosage or in particularly responsive individuals.

**MAJOR INDICATIONS—**Preparation for and recovery from surgery; supportive treatment of serious illnesses (pneumonia, poliomyelitis, carcinomatosis, tuberculosis); recovery from severe trauma and burns; decubitus ulcers; care of premature infants.

**DOSAGE—**The daily *adult* dose is three to five Nilevar tablets (30 to 50 mg.) but up to 100 mg. may be administered. For *children* the average daily dose is 1 to 1.5 mg. per kilogram of body weight; individual dosages depend on need and response to therapy.

**SUPPLY—**Nilevar is available in uncoated, unscored tablets of 10 mg. G. D. Searle & Co., Research in the Service of Medicine.

\*Trademark of G. D. Searle & Co.



SEARLE



## BLUE CROSS . . . BLUE SHIELD



Do not allow yourself to believe that socialized medicine is a dead duck. It is very much a living issue.

Representative John D. Dingle, Jr. (D. Mich.), son of the man whose name became a by-word with doctors because it was attached to the perennial Murray-Wagener-Dingle bill, has introduced a bill in Congress which if passed will provide free hospital care for persons over 65 who are receiving old-age benefits. Since Social Security has covered or will cover almost everyone, whether employed or self-employed, Mr. Dingle's intent is to offer free hospital care to most people of 65 and over. He has stated, "The wise humanitarian features of this bill are such as to commend themselves to all but the most callous." He feels that the plan will attract interest and support at a time when so much attention is being centered on health and welfare of the aging population. He has said that he has not introduced a compulsory health insurance bill only because the time is not right.

\* \* \* \* \*

In connection with Mr. Dingle's bill and in considering health insurance for an aging population, the following figures are interesting: Nearly sixty per cent of American men aged 65-69 are still in the labor force, and forty per cent of those in the 70-75 bracket are still in the labor force. The number of people 65 and over has quadrupled since 1900, while the total population has only doubled. Nearly three fourths of our people over 65 have either no income of their own or have an income of less than \$1000.00.

Elderly men still in the labor force are covered by Social Security and will start receiving benefits for themselves and their wives whenever they elect or are forced to retire. However, these benefits are so small that they will provide little for medical and hospital care.

It is a certainty that medical and hospital care will be provided. It may be from general taxation funds. It may be through taxes collected under the guise of contributions to the Social Security system. For those who have Blue Cross and Blue Shield a way must be found to make it possible to continue their membership after retirement and to provide the increased costs incident to their age—more frequent illness, longer hospital stays, and higher incidence of expensive surgery. To meet the problem, there will have to be a sharing of the costs by younger members of Blue Cross and Blue Shield by way of higher membership dues. Such higher dues will make our competitive situation in relation to commercial companies (whose coverage automatically stops at 60 or 65 years of age) very bad.

There is a rapidly expanding market for contracts, supplemental to those providing basic protection, which will provide coverage of major medical expense or extended benefits for catastrophic illnesses. A Blue Shield Commission special committee on ex-

tended benefits has reported: "We believe that it is essential that Blue Cross and Blue Shield not only reach an agreement on the pattern to be followed, but that every effort should be made without further delay to make such coverage available. Only by developing a unique and distinctive Blue Cross and Blue Shield approach to this problem can we hope to be effective in counteracting the increasing commercial insurance promotion of so-called 'major medical' programs. We cannot continue to oppose these programs unless we have a sound and adequate alternative. . . . Extension of Blue Cross and Blue Shield coverage into this area of prolonged and catastrophic illness is a natural and logical development, but time is of the essence. . . . Further delay will only invite greater inroads into an area of prepaid medical and hospital care which logically belongs to and which should be developed by Blue Cross and Blue Shield."

The Government administration is advocating an extended benefit plan of health insurance for Federal employees. All Federal workers covered under the Government's group life insurance program would be eligible — some two million persons. Their dependents would be protected also. The Government would pay the entire premium costs. Workers would be encouraged to take out basic health insurance at their own expense. Because of their inability to offer a uniform national contract, this being due to the multiplicity of plans with various experiences and differing principles of operation, Blue Cross and Blue Shield are not in position to bid for this business.

\* \* \* \* \*

We face similar difficulties in attempting to bid for the business of large corporations and labor unions which wish a national contract with uniform coverage. Right now the railroad brotherhoods are in the market for such a contract. The union wishes a full pay service contract, with a high income level, with outpatient medical and surgical care, obstetrical delivery service, anesthesia benefits, and diagnostic and therapeutic x-ray benefits. Can the 78 Blue Shield plans unite to provide and to service such a contract? An opportunity is offered to demonstrate specifically the ability of Blue Shield — by co-operative action of plans — to write a program for national accounts. It is an issue that must be faced without further delay. Either we want national accounts and are prepared to make adjustments in order to secure them, or we do not want them. Although the administrative officers of the several plans must assume the leadership in making such adjustments, it is ultimately for the medical profession to say that they will offer full cooperation in servicing the contracts if they are written, for these contracts will have to provide full pay or service benefits. Cash indemnity benefit contracts cannot successfully compete with commercial offerings.

J. Decherd Guess, M. D., Medical Director

# The Journal

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## South Carolina Medical Association

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### PERINATAL MORTALITY

#### II — THE ROLE OF ANTE AND INTRA PARTUM DISEASE AND INJURY

J. DECHERD GUESS, M. D.

Greenville, S. C.

In a previous article, the role of prematurity in causing perinatal mortality was discussed. This article will deal with antepartum maternal disease and intrapartum injury of the baby as factors in perinatal mortality.

Gold's<sup>2</sup> statistical studies indicate that maternal conditions account for 20.4 per cent of perinatal mortality; that fetal, placental and cord conditions give rise to 38 per cent and that 41.6 per cent of perinatal mortality is caused by ill defined and unknown causes. The role of toxemia, placenta previa, and abruption of the placenta was discussed in connection with prematurity as a cause of infant death.

Abnormal labor and chronic maternal disease each cause one-fifth of the deaths from maternal causes. Congenital malformations account for 18 per cent of the deaths from fetal causes, and erythroblastosis accounts for 10 per cent.

Birth injuries of the baby are included in maternal causes of perinatal death, since they presumably result from abnormal labor and delivery. Such injury is the second major cause of perinatal deaths. There is an overlapping of birth injuries which result from labor and delivery with all those conditions which give rise to or serve as a reason for either premature delivery or instrumental delivery or both. Cesarean section is considered to be instrumental. The relative incidence of birth injury resulting from the several methods of delivery shown in the New York City series, as reported by Gold,<sup>2</sup> is shown in table 3.

TABLE 3  
*INCIDENCE OF BIRTH INJURIES*  
(NEW YORK CITY SERIES) PER 1000 LIVE BIRTHS

Spontaneous delivery	0.21
Low forceps and cesarean section	1.3
Podalic version	30.0
High forceps	17.5
Mid-forceps	14.4
Breech delivery	14.0

This table indicates the importance of selection in choosing a method of delivery in abnormal labor. Podalic version is the most deadly obstetric operation, barring only craniotomy on the living child. The incidence of injury in low forceps delivery ranks with that of cesarean section. Breech delivery is more than ten times as dangerous to the child as is spontaneous cephalic delivery.

Chronic maternal disease accounts for 20 per cent of infant deaths from maternal causes. Syphilis is the one cause of perinatal infant death from maternal chronic disease for which preventive treatment offers almost certain results. It is well established that treatment of the mother begun early—not later than the fifth month of pregnancy—and carried out adequately, prevents syphilitic infection of the child in a great proportion of cases.

Pregnancy should not be attempted in some cases of heart disease. This is particularly true if decompensation has ever occurred. Even in cases where pregnancy should not have occurred, therapeutic abortion is rarely the best way out of a serious situation. All of these women require constant, aggressive medical care along with intelligent cooperation of the patient throughout pregnancy. Prolonged bed

rest and frequently hospital care are often indicated.

Experience has shown that given proper treatment, many women with seriously damaged hearts may be carried to term safely. Although heart failure may occur in any month of pregnancy, its incidence is low before the sixth month. It then increases rapidly to reach a peak in the eighth month and then rapidly diminishes to term. The improvement which occurs after the eighth month, when the blood volume begins to fall, often is so great that little or no fear may be had regarding labor, and delivery may be spontaneous or by low forceps. Induction of premature labor is rarely, if ever, indicated in the interest of the mother and is never indicated in the interest of the child because of the mother's heart disease.

Diabetes mellitus poses a problem to the obstetrician and to the internist (whether one and the same doctor or different doctors) and a real hazard to the mother and to the baby. Miller and his associates<sup>3</sup> have drawn certain conclusions from a study of 159 pregnancies in 137 diabetic mothers:

The fetal and early neonatal mortality is about five times that in non-diabetic mothers. The fetal and neonatal mortality is as high during the five years immediately preceding clinical recognition of diabetic symptoms as it is after the diabetic condition has become established. Even in mild diabetics, who do not require insulin and are free from maternal complications of pregnancy, the perinatal mortality of infants born of such mothers is four times higher than it is in non-diabetic mothers. Carrington<sup>1</sup> has elaborated on the role of early and unrecognized diabetes. She has stated that glycosuria, when it occurs in the last months of pregnancy in mothers whose carbohydrate metabolism is otherwise apparently normal, is associated with fetal mortality as high as that in recognized diabetic mothers.

The management of any diabetic gravida and of her newborn baby is diabetic, obstetric, endocrine, and pediatric. Premature delivery at the beginning of the thirty-eighth week of pregnancy seems to be justified. Opinion differs as to whether delivery should be by

section or through the vagina. Sedation should not be employed in either instance and spinal or local anesthesia should be used rather than general.

Thyrototoxicosis has been considered a valid reason for premature induction of labor. It seems to be no longer so. Pregnancy is not a contra-indication to thyroidectomy, and the operation should be undertaken before the symptoms become too urgent.

Hypothyroidism, whether associated with colloid goiter or not, often results in abortion or in cretinism or congenital goiter in the child. Medication with thyroid extract is indicated even in mild hypothyroidism and probably it should be given to maximum tolerance to women with histories of repeated abortion or premature labor.

The role of acute infectious diseases in causing abortion and premature labor has been reduced tremendously by the antibiotic drugs. Protection from exposure to viral diseases, especially rubella, in the early months of pregnancy is important. When exposure has occurred, the injection of immune-serum globulin, in the hope of preventing or modifying the disease, is warranted.

Congenital malformations account for about 18 per cent of perinatal deaths. The cause of malformations is not understood. They are loosely ascribed to defects in the germ plasma. There is evidence enough to suggest research in the fields of environmental pathology and nutrition of the embryo during the first eight gestational weeks as suggested by Gold,<sup>2</sup> and to demand avoidance of exposure to viral diseases during the first trimester of pregnancy.

Until mate selection ceases to be based on romantic fancy and until sound eugenic principles are made to govern choice, erythroblastosis cannot be completely avoided. More care and knowledge in blood typing for transfusion and intramuscular injection of blood is an important step toward lessening its incidence. Intrauterine death occurs in a relatively small percentage of cases of erythroblastosis. To recognize the possibility or likelihood of the birth of an erythroblastotic infant is to be prepared for prompt treatment of the baby. That implies readily available suitable Rh negative donors and facilities for

exchange transfusion within a few hours or less after birth. Every child of an Rh negative mother and an Rh positive father should be suspect and prompt steps to rule out sensitization of the child and to treat those found to be sensitized should be made.

Anoxia may be associated with any of the other causes of perinatal death. It may be the sole cause of such death. Anoxia may be caused by prolonged second stage of labor, uterine tetany, operative delivery, abruption of the placenta, placenta previa, and placental marginal sinus rupture. More frequently, it is caused by analgesia or anesthesia or a combination of both. Premature infants are more susceptible to all of these causes, and especially to anesthesia and analgesia than are full term babies.

#### Summary

Maternal causes of perinatal death have

*Concerning the geometric shapes of arteries and arterioles. A contribution to the biophysics of health, disease, and death.* J. Vernon Jeffords, M. D., and Melvin H. Knisely, Ph. D. *Angiology* 7:105-136 (April 1956) (Charleston)

Consider a segment of artery between consecutive branches; is it a cylinder, or a long, slowly-tapering truncated cone?

Our laboratory is interested in the factors which determine and limit the flow of blood under three sharply different sets of conditions, namely, (a) during the flow of unagglutinated blood in health, (b) during disease while the flow of pathologic agglutinated blood may still be altered back to the conditions of health, and (c) during the transition from reversible pathologic flow to the impaction of great numbers of small vessels and the consequent death of the subject.

The Poiseuille equation applies only to the flow of Newtonian fluids through cylindrical tubes.

Measurements of the internal diameters of branchless segments of mesenteric arteries have been made in frogs and mice using scales mounted in microscope oculars. The data to be presented show that in frogs and mice all measured segments are in reality long, narrow, truncated cones. In frogs, the minimal angle of taper was  $0^{\circ}7'$ , the maximal  $2^{\circ}22'$ . The frog vessels measured were from 163 microns to 500 microns in diameter, and the lengths of the segments were from 800 microns to 14 mm. For mice, the minimal degree of taper was  $0^{\circ}5'$ , the maximal  $2^{\circ}17'$ . The lengths of the vessel segments were from 480 microns to a maximum of 1.8 mm.

Conclusions: The Poiseuille equation cannot apply to the flow through cone-shaped vessels. New equa-

tions containing factors for acceleration of flow will have to be developed. Masses of agglutinated blood cells being forced down through the lengths of cone-shaped vessels must be subjected to a progressively increased compressing force. Embolization of arteries can occur either in the middle of a cone-shaped segment, or at points of branching where, other data shows, sharp reductions in diameter do take place.

#### REFERENCES

1. Carrington, E. R.: Obstetric Aspects of Prematurity, *The Bulletin of Maternal Welfare*, Sept.-Oct., 1955.
2. Gold, E. M.: Perinatal Mortality, *J. A. M. A.*, 159: 244, Sept. 24, 1955.
3. Miller, H. C., Hurwitz, D. and Kuder, K.: Fetal and Neonatal Mortality in Pregnancies Complicated by Diabetes Mellitus, *J. A. M. A.*, 124:271, Jan. 29, 1944.

tions containing factors for acceleration of flow will have to be developed. Masses of agglutinated blood cells being forced down through the lengths of cone-shaped vessels must be subjected to a progressively increased compressing force. Embolization of arteries can occur either in the middle of a cone-shaped segment, or at points of branching where, other data shows, sharp reductions in diameter do take place.

*Evaluation of Polyvinyl Pyrrolidone as a Plasma Expander.* (A.M.A. Arch. Surg. 72:612-617, Apr. 1956) Jenkins, L. B., Kredel, F. E. & McCord, W. M. (Charleston)

The intravenous injection of polyvidone causes an expansion of the plasma volume which disappears in 20 to 24 hours in the average case.

The hematocrit value fell an average of 5.8 vol. % 3 to 5 hours after an infusion of 1000 mL, with a gradual return to the normal daily range of plus-minus 2 vol. % at the end of 24 hours, although hemodilution persisted in 20% of the patients for 48 hours or longer.

The plasma volume showed a mean increase of one-half of the amount of polyvidone, given, as determined by the Evans blue dye method.

The total available fluid, as measured by the thiocyanate method, showed an average rise of three times the amount of polyvidone infused.

It is suggested that increase in total available fluid beyond the amount of polyvidone given is due to the retention of ingested fluid and an internal fluid shift from the intracellular space.

No local reactions were observed. One instance of chill and one instance of pulmonary edema from too rapid administration were the only constitutional reactions noted.

# **VENEREAL DISEASE MORBIDITY REPORTING BY PRIVATE PHYSICIANS**

R. W. BALL  
Columbia, S. C.

Much has been said concerning the alleged decline in venereal diseases in recent years and the assumed scarcity of cases seen in the private physician's practice. We would like to agree with this and admit that the venereal diseases are no longer a public health problem, but certainly as far as South Carolina is concerned such a contention is not supported by the number of cases reported monthly to the State Board of Health. For example, in November 1954, a total of 514 cases of venereal disease were reported by clinics, hospitals, private physicians, and other sources. Since that time there has been a progressive rise in the incidence of venereal diseases with a total of 1,678 cases reported for the month of May 1956.\* (See Figure 1) The problem is therefore still with

treatment of the venereal diseases, but in their control as well. It is only by his reporting of cases that the extent of the V. D. problem may be realized, and only by his reporting can he be given the recognition due him for this valuable contribution. In South Carolina it has for years been customary to mail weekly morbidity report cards to private physicians, requesting them to report, either by name or by case number, any venereal diseases treated during the week. It was observed, however, that for at least the past seven years private physicians have reported an average of only 4.4% of the total V. D. morbidity from all sources. Query revealed their reluctance in reporting to be due largely to the erroneous belief that by reporting by name was mandatory.

In July 1955 a new reporting system went into effect which eliminated the weekly mailing of V. D. Morbidity Report Cards. When a report of a positive blood specimen is mailed to a private physician from the State Board of Health, it is accompanied now by a V. D. Morbidity Report Card. The blank space for "name" is blacked out to assure the physician that the name is not required. An explanatory letter is attached asking the physician to complete the information on the card and return it in the penalty envelope enclosed for that purpose. If no answer is received after two weeks, a follow-up letter is mailed to the County Health Department, requesting that inquiry be made of the physician.

The response by private physicians in reporting their V. D. cases under this plan has been most gratifying. Their cooperation through such reporting gives us now a far more complete and accurate picture than ever before. Immediately upon introduction of the reporting plan referred to there was a sudden substantial increase of reporting by private physicians, the increase having been

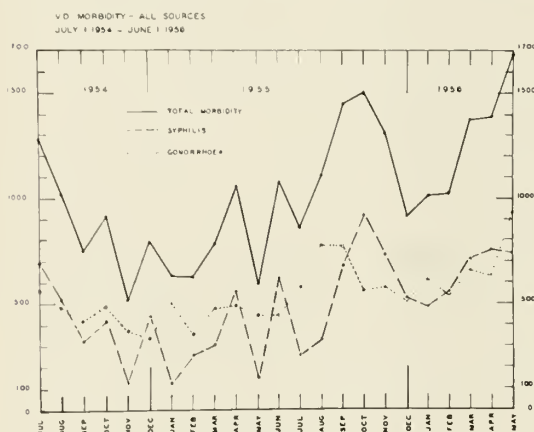


FIGURE 1

us, and the importance of the private physician in the control of these diseases must not be under-estimated.

It has long been realized that the private physician plays a vital role not only in the

\*Inasmuch as the other three venereal diseases (chancroid disease, granuloma inguinale, and lymphogranuloma venereum) constitute less than 1% of the total picture, they are not being considered in this article.

maintained even up to the last reports. (See Figure II) For example, private physicians

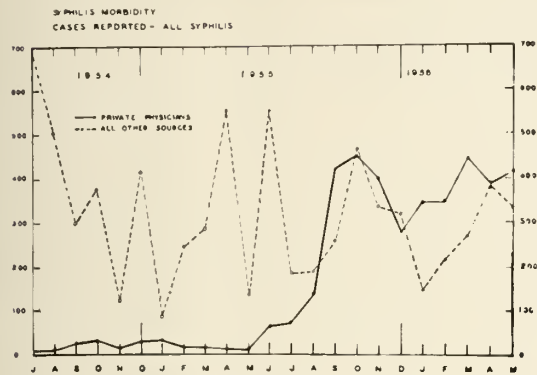


FIGURE II

reported in May 1955 a total of only 11 cases of syphilis, whereas, in May 1956 they reported a total of 410 cases of syphilis, including 53 primaries and secondaries. It is also generally believed that the private physician seldom, if ever, sees today a case of primary or secondary syphilis, but by reference to Figure III it may be seen that the private physicians

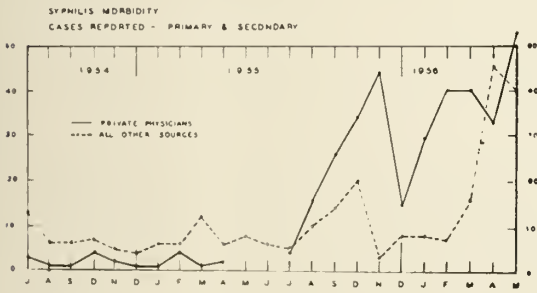


FIGURE III

are actually reporting more of these early cases than reported from all other sources.

It is also interesting to note that while the administrative plan referred to was directed primarily to obtaining more complete reporting of *syphilis* by private physicians, the reporting of gonorrhoea has also been materially and simultaneously increased. (See Figure IV) For example, in May 1955 private physi-



FIGURE IV

cians reported a total of only 12 cases of gonorrhoea over the entire State, whereas, in May 1956 private physicians reported 199 cases.

In summary, an administrative plan was introduced in South Carolina in July 1955 for the reporting of venereal disease morbidity. Private physicians of this State realizing that the confidential nature of these reports would at all times be respected have given their complete and wholehearted cooperation.

This has resulted in a more complete picture of our V. D. situation, and has shown the problem to be far greater than generally realized. Accordingly, steps are now being taken to institute additional control measures and additional service to private physicians, details of which will be disseminated to the profession in the near future.



# ELECTROCARDIOGRAM OF THE MONTH SINUS ARRHYTHMIA

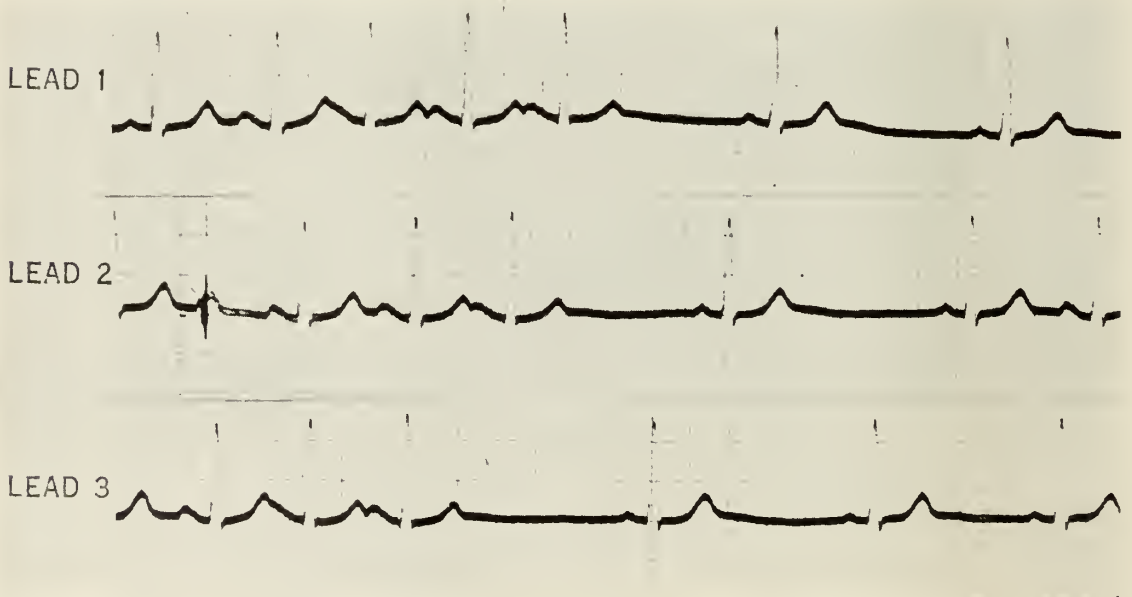
DALE GROOM, M. D.

Charleston, S. C.

*Case Record*—A young man 19 years of age was referred to the Heart Clinic because of a marked irregularity in his pulse rate noted on physical examination. He had no symptoms referable to the cardiovascular system nor any demonstrable cardiac abnormalities. Shown below are the three standard leads of his electrocardiogram.

*Electrocardiogram*—Throughout this tracing there is rhythmic variation in rate, the cycle length (R-R interval) ranging from a minimum of .48 sec. to a maximum interval of 1.28 sec. This corresponds to a pulse rate change of 125 down to 47 beats per minute. In this patient the variation occurred synchronously with respiration. Some variation also occurs in the P-R interval which ranges from about 0.20 sec., at times falling into the preceding T wave, to about 0.12 sec. during the expiratory phase. The P waves themselves show a changing configuration with rate, becoming rounded and of greater amplitude as the rate increases. Only a very small alteration occurs in the QRS complexes which show more prominent S waves during expiration. All other aspects of the patient's electrocardiogram were entirely normal.

*Discussion*—Disturbances in rhythm may arise at any level along the course of conduction from the pacemaker, the sino-atrial node, down through the atria, the atrio-ventricular node, the bundle of His or its branches, to the ventricular muscle itself. In this case the arrhythmia arises in the sino-atrial node which initiates impulses at a rate that constantly changes with respiration. A variation of more than 0.1 sec. in the R-R interval from one cycle to another is referred to as sinus arrhythmia. If the interval doubles or, as in this case almost triples, it is often termed a "partial sino-atrial block". Such a marked fluctuation of pulse rate is unusual at this age though lesser degrees are extremely common. Synonyms are "juvenile arrhythmia", so named because of its frequent occurrence in childhood, and "respiratory arrhythmia". In spite of the fact that this is a normal find-



ing it may, as in this case, be of special clinical interest.

Usual explanation for this phenomenon is that of changing vagal tone at the pacemaker, the stimuli arising through afferent fibers in the lungs and pleura (Hering-Breuer reflex). Additionally, inspiration produces an increased negative pressure within the thorax, increases venous return to the heart, distends the great veins leading into the right atrium and accelerates the heart rate by what is known as the Bainbridge reflex. Increasing the heart rate by exercise or diminishing vagal tone by atropine usually decreases or abolishes sinus arrhythmia. Generally it is most noticeable at slow heart rates. Because the pattern of variation is a rhythmic, repetitive one this arrhythmia can be described as a "regular irregularity", as contrasted to the total irregularity of atrial fibrillation. A rare form is described in which the changes in rate bear no relation to respiration.

Some changes in the P waves and the P-R intervals are often seen in this arrhythmia, perhaps explainable by variation in vagal tone and in cardiac filling and distention of the

atria. Furthermore the electrical axis may become more vertical as the heart descends with the diaphragm, giving rise to a respiratory variation in the QRS complexes as well.

Although sinus arrhythmia is occasionally seen in digitalis toxicity and perhaps in some types of myocardial disease, it is essentially a normal finding which is apt to decrease or disappear after adolescence. Acute rheumatic fever and any condition capable of increasing sympathetic stimulation tends to abolish the arrhythmia. Conversely, the reappearance of sinus arrhythmia following subsidence of such an acute illness has been considered a favorable sign of recovery. Symptoms of faintness due to very prolonged pauses between beats have been described but must certainly be exceedingly rare.

Sometimes the irregularity is so marked as to be easily confused with other arrhythmias. In cases such as this one where the variation in rate is extreme an electrocardiogram may be the only method of establishing a satisfactory differentiation from arrhythmias of pathologic significance.

### The glory of the profession

But do not let us forget that our calling derives its honor not from its power of repairing the carnal body; were this its only title to respect it would take a low place in the hierarchy of professions. Those professions which deal with the ends which alone make life worth observing—such as that of the law of religion, philosophy and of the fine arts—would in such case regard our occupation but as a higher kind of farriery. The glory of our profession, from the hour when Hippocrates, in that oath wherewith like a trumpet, the notes of which reverberate still through the ages, summoned us to take our place in the forefront of the fight, has been that we are concerned not only for mankind, but for men. The ideal side of a physician's life is that he brings healing or solace to his human fellow. The Greek philosopher, like the modern socialist, would sacrifice man to the state; the priest would sacrifice man to the church; the scientific evolutionist would sacrifice man to the race. Yet, while all these elements of cooperation and of aspiration work together for good, we thankfully see that, after all, the tendency of civil evolution, as of Christian ethics, is to use society as a means for man himself, as a means to purify and to elevate the individual soul. The physician, then, is more than a naturalist; he is the minister not only of humanity at large but of man himself. Thus it is that the humblest of us, and

he who labors in the darkest and most thankless parts of our cities, is never a drudge; in the sight of the angels he is illustrious by the light of his service to men and women. The man of science can tell us delightful things about birds, flowers and wild life, for all life is various and touching; he can tell us queer and uncomfortable things about our insides, amazingly useful things about steam and electricity, but at bottom, when the marvel is over or the material gain is won, all this grows stale. Ideas concerning the harmony of the spheres, concerning cosmic evolution, concerning the inhabitants of Mars, are prodigious, they may uplift us sometimes with a sense of the greatness of man's inheritance, but alone they are cold and unsatisfying. The child of his age feels that a sonnet of Wordsworth, a flash of Browning's lamp into man's heart, an idyll of Tennyson give us thoughts worth more than all the billions of whirling stones in the universe. In strengthening and cherishing this inner life of his brother and sister, happily, the physician has many fellows, but the physician alone among them all holds sacred the lamp of the personal life for its own individual sake; he alone forgets church, state, nay, even the human race itself, in his tender care for the suffering man and for the suffering woman who come to him for help.

Sir Clifford Allbutt—1898

**MINUTES OF THE HOUSE OF DELEGATES**  
**of the**  
**SOUTH CAROLINA MEDICAL ASSOCIATION**

**One Hundred and Eighth Annual Session**

**May 15, 16, 1956**

**OCEAN FOREST HOTEL — MYRTLE BEACH, S. C.**

Dr. O. B. Mayer, Presiding

CALL TO ORDER—10:00 o'clock a. m., Tuesday, May 15, 1956.

THE CHAIR: I will ask the Rev. W. K. Wingard, pastor of St. Philip's Lutheran Church, Myrtle Beach, S. C., to ask the invocation.

Rev. W. Wingard: Let us pray. Eternal Father that gives life and health to us all, through thy son feel and relieve the suffering of mankind. Grant each and everyone of us a deeper insight and knowledge in the calling that is ours. Help us, oh Father to see that calling is divine and grant that we might truly do our part in this life for the benefit of humanity. Bless those here assembled and this assembly, grant them success in their deliberations and undertakings, for we pray this in the name of our Lord Jesus Christ. Amen.

THE CHAIR: Thank you Dr. Wingard. Will the Chairman of the Credentials Committee, Dr. C. W. Evatt, give his report.

DR. C. W. EVATT: We have thirty-three (33) certified delegates and a plurality of presidents, ex-presidents and president-elect and councilmen.

THE CHAIR: Thank you, Dr. Evatt, since there are thirty-three delegates now here and the Constitution only requires twenty-five, I now declare the one hundred and eighth annual meeting of the South Carolina House of Delegates in session.

As my first duty, and it is a very pleasant thing for me, I want to call upon our president-elect, Dr. William H. Prioleau and ask him to say a word to you. Dr. Prioleau.

DR. WILLIAM H. PRIOLEAU: Mr. Chairman, I am deeply touched by being honored in this way. I am very much in awe of the responsibilities ahead of me. On the other hand, having worked with the council to see its industry, its conscientious attitude, I know that we will have a very good year. Thank you. (Applause)

THE CHAIR: I know that we are going to have a good year and I thank Dr. Prioleau for coming up. (The Chair asked if there were any fraternal delegates present from the State of Georgia, North Carolina or other states. There was no response.)

THE CHAIR: We are now under the head of "Announcement of Reference Committee" which has been published in the program. If the Chairmen find there are any vacancies, if they will let me know immediately after this session we will fill them for them.

The location for the meetings of reference committees is on the blackboard and those who are interested, and I hope there will be many interested, will see where the committees meet. The meeting hour is three o'clock (3:00) P. M.

THE CHAIR: We are now under the head of "Presentation of Resolutions and Recommendations." Are there resolutions?

DR. W. T. BARRON (Recognized): Mr. President, Dr. Ned Wheeler, who heads the Red Cross Blood Bank in this State has asked me to present the following resolution for him. (Reading)

"Whereas the Red Cross Blood Bank Program has successfully filled a pressing need in those counties that have adopted it, and

Whereas, it is felt that it would greatly benefit those counties who do not have any type of blood bank program. Be it therefore resolved that the South Carolina Medical Association endorse this program and recommend its adoption in those localities not now participating in a blood bank program."

Mr. President, I would like to move that this resolution be adopted.

THE CHAIR: Gentlemen, I believe the order of procedure is to refer this resolution to a committee. I shall therefore accordingly refer it to the Miscellaneous Business Committee to be acted on by the committee and presented back to this body tomorrow. Are there other resolutions?

DR. J. D. GUESS (Recognized): Mr. President, members of the House of Delegates, I have two proposed amendments to the By-Laws of the Association that I will present at this time.

Resolved that Chapter VIII, Section 8 of the By-Laws, which section deals with the appointment of the President of a standing committee on Maternal Welfare be amended, so that after amendment it shall read as follows:

Chapter VIII, Section 8. The Committee on Maternal Welfare shall consist of a chairman, who shall be a full time specialist in obstetrics, or in obstetrics and gynecology, and who shall have been nominated by the South Carolina Obstetrical and Gynecological Society; the Director of the Maternal and Child Health Division of the South Carolina State Board of Health, provided he be a member of the South Carolina Medical Association; and six other members, at least four of whom shall be generalists, actively interested in the practice of obstetrics; provided, however, that should notice of the nomination for chairman not be received by the secretary of the Association before adjournment of the annual meeting, the President shall appoint a chairman without such nomination."

Also the following:

Resolved, that Chapter VIII, Section 9 of the By-Laws, which section deals with the appointment by the President of a standing committee on Infant Mortality, be amended so that after amendment shall read as follows:

CHAPTER VIII, Section 9. The Committee on Infant Mortality shall consist of 5 members who, after

the first year, shall be appointed to serve for a term of two years each, and who shall be generalists, to be nominated by the South Carolina Academy of General Practice, one specialist in obstetrics or obstetrics and gynecology, to be nominated by the South Carolina Obstetrical Society, and two specialists in pediatrics, to be nominated by the South Carolina Pediatric Society, one of whom shall be designated to be chairman of the committee; provided, however, that should notices of such nominations not be received by the secretary of the Association before adjournment of the annual meeting of the Association, the President shall appoint the committee without such nomination or nominations."

THE CHAIR: The resolutions of the changes in by-laws, as have been presented by Dr. Guess, will be referred to the Reference Committee on Amendments to the Constitution and By-Laws. Are there other resolutions?

DR. J. E. CROSLAND (Recognized): (Reading)

"BE IT RESOLVED by the Greenville County Medical Society in regular meeting assembled on the 3rd day of April, 1956, that we propose and recommend to the House of Delegates of the South Carolina Medical Association at its Annual Meeting in May, 1956, that the Association's award for outstanding and distinguished public service be presented to the Honorable James F. Byrnes in token of our recognition of and appreciation for his interest and official leadership while Governor of the State, in the extension and improvement of medical care for the people of South Carolina, and especially for the achievement of his administration, in the creation of the South Carolina Mental Health Commission, the extensive expansion of the physical plant and facilities of the State Hospital, and in completion of the program of expansion of the Medical College of South Carolina."

THE CHAIR: Dr. Crosland's resolution will be referred to the Reference Committee on Miscellaneous Business. Are there other resolutions?

DR. J. G. MURRAY of Greenville (Recognized)

"BE IT RESOLVED By the Greenville County Medical Society in regular meeting assembled on the 6th day of December, 1955, that this Society propose and sponsor the following amendment of the By-Laws of the South Carolina Medical Association, to-wit:

Amend Chapter VIII, Section 5, by striking out the first sentence thereof and inserting in lieu thereof the following:

"Section 5. The Committee of Legislation and Public Relations shall consist of five (5) members, to be nominated by the Council, and elected by the House of Delegates; the President, President-Elect, and Secretary, Ex Officio. The terms of office of the elective members shall be so arranged that one term shall expire each year. In the initial election, therefore, one member shall be elected for a term of one year, one for a term of two years, one for a term of three years, one for a term of four years, and one for a term of five years; and each year thereafter one member shall be elected for a term of five years. The Executive Secretary of the Association shall serve as executive secretary of this committee. It shall represent this Association in preventing the enactment of legislation which is inimical to the public health, to scientific medicine, or to established standards of medical training or of medical care. It shall keep in touch with professional and public opinion and shall make a careful study of such proposals and plans as are advanced which would bear directly or indirectly upon the practice of medicine and upon the public health (i. e., health insurance, hospital insurance, State or Federal aid in the

care of the indigent, etc.) and shall advise the House of Delegates, the officers of the Association, and the members of the Association concerning these matters. It shall make recommendations to the House of Delegates and the Council should the occasion arise."

THE CHAIR: Dr. Murray's resolution will be referred to the Reference Committee on Constitution and By-laws. Are there other resolutions?

DR. GOLDSMITH: (Recognized)—Mr. President, I turned in a resolution to Dr. Joe Cain in regard to the Social Security bill. It is a copy of the one adopted by the Texas Medical Association. I did not have time to re-word it, and if he has the resolution I would appreciate it if he would read it.

(There was some confusion and controversy about the reading of this resolution.)

DR. CAIN: I am going to read it, but it is out of order.

THE CHAIR: Dr. Goldsmith, do you want it reported through the Council or do you want it as an independent resolution?

DR. GOLDSMITH: If he is going to report it through the Council, that is all right.

THE CHAIR: Are there any further resolutions or recommendations? If not, we are under the heading of "Reports of Officers." As you know the constitution requires the officers of the association to make a report to the House of Delegates.

At this time I will make my report.

THE PRESIDENT'S REPORT (Read by Dr. O. B. Mayer)

This Report was published in *The Journal* of June 1956. (Applause)

THE CHAIR: This report will be referred to the Reference Committee on Reports of Council and Officers.

We will now hear from our Executive Secretary, Mr. Meadors, our popular and efficient executive secretary.

EXECUTIVE SECRETARY'S REPORT (Read by Mr. M. L. Meadors)

#### REPORT OF EXECUTIVE SECRETARY AND COUNSEL

Your Association has completed another successful year. The past twelve months have been highly satisfactory from several viewpoints. First of all, the membership has again increased and is growing steadily. The total number of members in good standing at the present time is 1391 as compared with 1320 one year ago. Of this number, 1193 are active dues-paying members, 168 are Honorary, 13 are Junior Members and 17 are in the Armed Services. It is interesting to note that of the new members gained during the year, 7 were women, giving us a total of 32 women physician members of the Association at the present time.

Consequent upon the increase in the active membership, the finances of the Association, already in sound condition, have improved. Total dues collections for 1955 amount to \$24,159.00 as compared to \$22,580.00 for the year 1954. In addition, we collected and remitted to the American Medical Association last year a total of \$28,600.00 dues paid by members of the State Association to the national organization. The trend has continued during the first four and a half months of this year. A total of 796 members have paid dues to the State Association for 1956 and 765 have paid dues to the American Medical Association. This is slightly under the number last year. We have already remitted to Chicago in this year, a total of \$18,385.00 in dues of members of the A. M. A.

Revenue from advertising in the *Journal*, a very important item and one which enables us to carry on the activities of the Association, with the smallest

state dues in the country, last year, amounted to \$21,210.94. In this connection, however, it must be noted that expenses of printing have increased materially. Contracts for advertising for the current year are equal to or slightly in excess of those for 1955. We have just entered a contract with the State Journal Advertising Bureau, through which by far the majority of our advertising is placed, providing for an increase in advertising rates which should result in further improvement in our revenue position after the first of January 1957.

Another activity in which the Association was highly successful during the past year was the legislative program. One year ago, in Charleston, we reported to this House of Delegates that the Bill to abolish the practice of Naturopathy in South Carolina had been fixed as Special Order for debate in the Senate of South Carolina on the next day. That was Wednesday of the Annual Meeting. As you of course know, the opposition filibustered and the Bill had to be carried over to this year. You are also familiar with the developments in the 1956 session and the fact that the Bill was successfully passed on February 21 and became law with the Governor's signature a week later. The single amendment was that adopted in the House, which we did not oppose, providing that certain individuals who were graduates of Grade B medical schools and who had served five years in the state under a licensed medical doctor may take the examination of the Medical Board.

Thus, the long, hard legislative struggle with the Naturopaths was brought to a successful conclusion. But the end is not yet—quite. Major developments in the struggle have been singularly coincidental with the convening of your annual meetings. Enforcement of the law has been held up by an Injunction of the Supreme Court, obtained in a proceeding instituted by the officials of the Naturopathic Association shortly after passage of the Act against the Attorney General, in the effort to have the Act declared unconstitutional. The suit was brought in the original jurisdiction of the Supreme Court, that is, for initial hearing there, and, therefore, is not subject to the delays which would have ensued following trial in a Circuit Court and Appeal. It was heard on Monday of this week, May 14th, and is now under consideration by the Supreme Court. Decision may be expected at any time within the course of the next several weeks. The Defendant was the Attorney General of South Carolina, and the case was presented by representatives of his office. While, of course, we cannot predict with certainty, the outcome, we are extremely hopeful and believe that, on the basis of precedents in other states involving naturopathic and other licensing laws, the validity of the Act will be sustained.

Another Bill in which the profession was interested and which was pending at this time last year, was that to enlarge the authority of the practitioners of optometry in the State. Then in the House of Representatives, it completed passage in that body in January of this year and went to the Senate, where it was referred to the Committee on Medical Affairs. The Committee held a hearing but never reported out the Bill, and it, therefore, became extinct upon adjournment.

One other measure concerning which we occupied the position of an observer but without any activity whatever, was that introduced in the House through the Committee on Military, Municipal and Public Affairs, to redefine and widen considerably the scope of the practice of chiropody. After receiving a favorable report from the Committee in the House following a

Public Hearing, at which considerable opposition was expressed, although not by the medical profession, the Bill was referred back to the same Committee where it remained at the close of the session. Since that time we have gathered as much of the available material as possible on the schools which are the sources of education and training of practitioners in chiropody and these were submitted to Council and will be given intensive study during the next few months. Both the optometry and chiropody bills may confidently be expected for reintroduction in the General Assembly of 1957.

Following the custom of publication every two years, the new directory of members of the Association was prepared over the course of the past few months, and has just been issued. We had hoped and set our schedule for completion of the project by the early part of the year, but the press of other activities in the office, with our limited administrative personnel, made it impossible to do so. Every effort was made to obtain the latest available information concerning each of the members, and to record this accurately in the directory. All members of the Association should have received their copy during the past week and we hope that it will be found to contain a minimum of errors. Of course some are bound to creep in.

A new edition of the Constitution and By-Laws, corrected to date, likewise, has just been released. This is the first publication since the extensive changes were made a few years ago, under which the present procedure and provisions for committee work and personnel were adopted. Delegates have received their copies this morning, and the issue is so recent that if further changes in the By-Laws should be determined at this Session, they can be made in the balance of the copies with a minimum of expense.

Publication of the monthly Newsletter which was continued regularly throughout last year, except for two months in the summer, was again suspended during the past three or four months. The reason, actually, was the lack of time to adequately attend to its issuance, along with all of the other activities in which we have been necessarily engaged. We expect to resume it shortly.

Early this year, complying with action by the House of Delegates of the American Medical Association at its December meeting, we conducted by mail a poll of the members of the State Association to determine their thinking on the matter of inclusion of members of the medical profession under the provisions of the Social Security law. The AMA was interested in knowing whether the rank and file of the profession approves of the stand it has taken. The results of our poll, which were duly reported to Chicago, indicated an overwhelming sentiment by the doctors in South Carolina in support of the AMA's position that doctors should not be included compulsorily within the terms of the law, and a majority felt that provision should be made whereby those doctors who wish to come under it may do so.

The Social Security Amendments Bill (H.R. 7225) is still in the Finance Committee of the Senate and is expected to be reported out this week. A telegram was received from Dr. Lull on Saturday. The features in which we are most interested and which the medical profession is opposing vigorously do not concern the inclusion of doctors, but the proposal to lower the age at which women may begin to receive old age benefits from 65 to 62, and that which would provide for disability payments to covered persons beginning at age 50.

The administrative personnel in the office in Florence have assisted materially in the voluminous clerical work connected with the recent presentation of the proposed new group insurance plan offered by Educators Mutual Insurance Company. Representatives of the latter are here at the meeting to answer any questions you may have, and, incidentally, to be our hosts at a cocktail party Wednesday evening.

During National Medical Education Week in April we mimeographed and mailed to all members of the Association a letter from D. R. L. Crawford, Chairman of the Medical Education Fund Committee, to all members of the Association, calling attention to the drastic need for increased contributions to the Fund. The results, we think, were remarkably good. Last year we had exhibits at three of the larger fairs in the state. At the State Fair and the Eastern Carolina Agricultural Fair in Florence we had a most interesting display of quack cures and appliances. This was timed to coincide with our naturopathic struggle. The exhibit at the Greenwood County Fair showed vividly the effects of different quantities of alcohol on the average automobile driver. Both displays were obtained from the AMA, our expense being limited to transportation and supervision charges.

We continued to arrange and edit the quarterly issues of the Woman's Auxiliary Bulletin. Despite the comparatively small membership of the ladies' organization, more than one comment in the last year or two has compared their Bulletin favorably with those of any other of the state organizations. We again cooperated with the Association of American Physicians and Surgeons in the conduct of the annual essay contest, and the young lady who was the winner will be here tomorrow to receive her award.

In addition to the annual and interim sessions of the House of Delegates of the American Medical Association, we attended, also, last year, the Conference of Editors and Business Personnel of State Journals, Public Relations Institute of the A.M.A. in September, Legislative Conference in Atlanta in November, the Institute for Executive Secretaries in Chicago in February of this year; and, in April, a Conference of Legal Counsel of State Medical Associations. The last named proved to be one of the most interesting and valuable meetings we have attended. Counsel for the State Associations and a member of large county societies from all over the country attended the two-day meeting and a number of well-known and highly placed figures in the legal profession were included among the speakers on the several panels. Subjects discussed were exclusively those of interest and importance to members of the medical profession and their allied organizations, and included Malpractice Claims and Insurance, the Corporate Practice of Medicine, Income Tax Procedures. This Conference was the result of the action of the Board of Trustees of A.M.A. following recommendation and planning by its newly-organized legal department. It is, in our opinion, an important step forward, one long overdue, and which we hope will be continued at annual or bi-annual intervals.

In addition to the various meetings mentioned above, your Executive Secretary at the request of the legal counsel for the California Medical Society and at its expense, went to Sacramento in October to testify before an Interim Committee of the California Assembly, engaged in a study of the question of whether or not adoption of a law to license naturopaths in that State would be in the public interest. Others testifying at the same time were Dr. Frank Dickinson, head of the Economic Research Department of the American

Medical Association, and Dr. Dean of the College of Medical Evangelists in California. The Committee seemed to be very much interested in the record of our activities in South Carolina and, particularly, in the authentic information we had been able to obtain concerning the so-called schools and sources of training of naturopaths.

The usual other activities of the office have continued to about the same extent and along the same lines as in the past, and need not be detailed here again. These have involved legal opinions on various questions, the accumulation and supply of statistical data to officers of the Association and others, activities with respect to matters pending in the National Congress, etc., and, of course, the usual preparations for this Annual Meeting.

In conclusion, we wish to express our sincere thanks to Dr. J. P. Cain, Jr., Chairman, and the members of Council; Dr. J. Howard Stokes, Treasurer; and Dr. O. B. Mayer, President, for their unfailing consideration, courtesy and cooperation in all of our efforts to conduct the business affairs of the Association.

(The following additions were made by Mr. Meadors) I wish to call your attention to an error, which we regret and that was the omission of the name of Dr. Kenneth M. Lynch as one of the Past Presidents of the Association. It was a complete oversight and we have written Dr. Lynch apologizing. We shall try to see that that is taken care of in the future. One other thing also no reference is made to a change under the by-laws. The Chairman of the Executive Committee of the State Board of Health is ex-officio a member of the house of delegates. Of course, Dr. Wallace is a member, anyhow; and also a member of the house of delegates is the Chairman of the State Board of Medical Examiners, Dr. Dibble. We did not note that in the program for which I am sorry. (Applause)

THE CHAIR: The report of the Executive Secretary will be referred to the Reference Committee on Reports of Council and Officers.

The next report is from the Secretary, Dr. Wilson. REPORT OF THE SECRETARY (Read by Dr. Robert Wilson)

#### REPORT OF SECRETARY

During the past year my duties as Secretary of the South Carolina Medical Association have been varied and interesting. A great deal of correspondence and information comes to the Secretary and much of this has been referred to the attention of Council. Routine secretarial details have been handled as expeditiously as possible and much of the correspondence has to do with inquiries from physicians desiring information about the possibility of practice in South Carolina. The secretary depends on the Councilors and officers of the local medical societies to keep him acquainted with the opportunities for practice in various parts of the state, and I should again like to ask anyone who knows of such a location to let me know so that I may add it to my list of available situations for practice. Many inquiries have been in regard to the opportunities for specialized practice in the larger communities but I have felt that this is a question that must be answered by the individual, after consultation with physicians in the various towns and cities; however a number of physicians are interested in general practice and there must be more openings in the state for this sort of opportunity.

During the past year I have attended an official AMA conference on legislative matters held in Atlanta in January, the Annual Medical Public Relations Conference and the Interim Meeting of the American Medical Association in Boston in November 1955. The information, suggestions and conclusions of these con-

ferences have been most helpful in handling much of the matters of the Association work. As Secretary of the Council I have attended all meetings of this group and the legislative hearings in regard to the bill outlawing the practice of naturopathy, which was guided to a successful conclusion largely through the efforts of the Chairman of Council, Dr. J. P. Cain of Mullins, and the President of this Association, Dr. O. B. Mayer of Columbia. To these two gentlemen the Association indeed owes a debt of gratitude. I have no specific recommendations or suggestions to make to the House of Delegates at this time but I will say again that I have enjoyed my work as Secretary and I would like to thank the House of Delegates for the honor and privilege of having served you in this capacity. (Applause)

Respectfully submitted,  
Robert Wilson, M. D.  
Secretary

THE CHAIR: Thank you Dr. Wilson, this report is referred to the Reference Committee on Reports of Council and Officers. The next is the Treasurer's Report, Dr. Howard Stokes. TREASURER'S REPORT—(Read by Dr. Howard Stokes)

TREASURER'S REPORT

Revenue for the year 1955 amounted to \$75,521.77. Of this amount, \$29,044.50 was collected for the AMA. The balance of revenue is accounted for in great part by (1) our State membership dues, which,

including our State Journal subscription dues, amounted to \$24,159.60, and (2) our Journal advertisements, which totalled \$21,210.94. (A tribute to our Journal.) Expenses during the year amounted to \$74,162.78. Dues remitted to the AMA amounted to \$28,600.00; Journal printing, \$13,038.00, salaries for Editor, Executive Secretary, secretarial assistance in the offices of Editor, Secretary and Executive Secretary amounted to \$17,592.00. Expenses for proceedings against Naturopathy were 2,292.82. Balance on hand January 1, 1956—\$1,358.99. Our Association has now in investments, \$35,777.45: \$10,000.00—U. S. Government Bonds 15,675.00—Building and Loan Associations 10,100.00—South Carolina National Bank

The financial state of the Association is generally encouraging. At times during the year it has been nip and tuck and now we have about reached the stage where there is more nip than tuck. That is, it is now apparent that we will not be able to tuck away much money in reserve.

To the secretaries of the county medical societies—our office again salutes you and commends you for your continued fine work and splendid cooperation. To the Executive Secretary and his able staff who continue to take care of the bulk of routine business of our office, we repeat once more our most grateful thanks. (Applause)

Respectfully submitted,  
J. Howard Stokes, M. D.  
Treasurer

South Carolina Medical Association  
Florence, South Carolina  
Statement of Revenue and Expenses  
January 1, 1955 to December 31, 1955

Revenue:

A. M. A. Dues	\$29,044.50
Membership Dues	20,433.00
Subscription Dues	3,726.60
Advertising	21,210.94
Interest Earned	610.82
Directory of Members	70.00
Miscellaneous	425.91

Gross Revenue

\$75,521.77

Less-Expenses:

A. M. A. Conventions	667.36
S. C. Convention	207.13
Dues and Subscriptions	37.40
News Letter	469.06
Heat, Lights, Water and Fuel	229.07
Insurance	27.17
Miscellaneous Expenses	1,847.32
Office Supplies	944.60
Journal Printing	13,038.10
Rent	720.00
Salaries:	
Editor	\$1,200.00
Director of Public Relations	8,191.50
Secretaries and Others	8,200.62
Postage	399.58
Telephone and Telegraph	915.81
Travel Expense	2,959.32
Bank Charges	5.86
Public Relations Expense	1,032.46
Woman's Auxiliary	988.23
Refunds and Transfers	352.00
Maternal Welfare Committee	18.00
Historical Committee	500.00
Taxes	319.37
A. M. A. Dues	28,600.00
Naturopathy	2,292.82

Total Expenses

\$74,162.78

Excess of Revenue Over Expenses

\$ 1,358.99

South Carolina Medical Association  
Florence, South Carolina

Balance Sheet  
December 31, 1955

<i>Assets</i>			
<i>Current Assets:</i>			
Petty Cash		\$	10.00
Bank			5,966.28
Accounts Receivable			1,569.75
<i>Investments:</i>			
U. S. Government Bonds	\$10,000.00		
Peoples Federal Savings & Loan	10,140.90		
Security Building & Loan	5,535.60		
S. C. National Bank	10,100.95	35,777.45	
Deposits Receivable		3.00	
Total Current Assets			\$43,326.48
<i>Fixed Assets:</i>			
Furniture and Fixtures			4,838.73
Total Assets			<u>\$48,165.21</u>
<i>Liabilities</i>			
<i>Current Liabilities:</i>			
Social Security		\$	88.15
Withholding Taxes			553.00
Total Liabilities			<u>641.15</u>
<i>Surplus</i>			
Balance, January 1, 1955		46,165.07	
Excess of Revenue Over Expenses		1,358.99	
Total Surplus			<u>47,524.06</u>
Total Liabilities and Surplus			<u>48,165.21</u>

We have examined the treasurer's records of the South Carolina Medical Association for the year ending December 31, 1955.

We certify that in our opinion the above Balance Sheet and accompanying statement of Revenue and Expenses set forth the financial position of the South Carolina Medical Association as at December 31, 1955, and the results of its operations for the period ended on that date.

Respectfully submitted,  
JAILLETTE & BRUNSON  
Public Accountants

Florence, South Carolina  
May 10, 1956

Thank you Dr. Stokes.

THE CHAIR: The report of the Treasurer will be referred to the Reference Committee on Reports of Council and Officers. Next, we will have the report of the Editor of the Journal, Dr. Waring.

EDITOR OF THE JOURNAL REPORT—(Read by Dr. J. I. Waring)

EDITOR'S REPORT—1956

Since the last meeting *The Journal* has appeared regularly and without audible complaint from the membership. Every effort has been made to make it worthwhile. The same scarcity of proper original articles which was mentioned last year still obtains, and no journalistic manna seems likely to fall from heaven.

We have published several transcribed panel discussions, and believing that these are worthwhile material, we plan to continue this type of article if necessary cooperation can be obtained.

We have continued to carry book reviews, feeling that they are of interest to many readers. The editor would be very happy to have a list of members, who, like Barkis, might be "willin" to undertake reviews of books which belong in their fields of interest.

During the year *The Journal* put out two special numbers, one on the occasion of its 50th Anniversary, and the other at the time of the opening of the Medical College Hospital. It also has carried as a new feature a series of short monthly articles on electro-cardio-

graphy under the authorship of Dr. Dale Groom.

The Editor attended the meeting of State Journal Editors in Chicago last fall.

Feeling that for our senior medical students some sort of introduction to the affairs of the Association would be of value, and that the Association might gain by the early interest of these potential members, your editor proposed to Council that he be allowed to seek a sponsor who might underwrite the cost of sending *The Journal* to these students. The editor is happy to report that he has interested Eli Lilly & Company in this project, and that the sponsor agrees to pay for the costs of the Journal not only for the senior students at the Medical College in Charleston, but also for all members of the resident house staffs of accredited hospitals in the state. This arrangement will begin in September or October and carry on for nine months from that time, when the results of the gestation may be evaluated.

Among the many things which *The Journal* lacks is more comment from its readers on its faults, deficiencies, or successes. Without such expression, the editor must work blindly on the assumption that everybody, except perhaps himself, is happy. No editor can afford to be content with things as they are, and for things as they might be bettered, this editor solicits heartily your critical remarks, however devastating they may be. (Applause)

J. I. Waring

THE CHAIR: Thank you Dr. Waring. This report also will be referred to the Reference Committee on Reports of Council and Officers. The next is the report from the Chairman of Council, Dr. Joe Cain. Undoubtedly in this report there will be a divided portion and I will attempt to refer them as the indications come up, in his report. The doctor will kindly stop after his recommendations.

#### REPORT OF THE CHAIRMAN OF COUNCIL— (By Dr. Joe Cain)

Members of the House of Delegates, as Chairman of Council I would like to remind you the prime function of council is to act as the finance committee of the State Association, and to handle all items of business which properly should come up within the association during the interim between the regular meetings of the House of Delegates. And our Constitution and By-Laws are so set up that the council is composed of members who are qualified to bring that about. By qualification I do not mean individual qualification, I mean the make-up of the council which is composed of elected delegates from each of the nine districts; of the elected delegates to the American Medical Association; of the president, the vice-president, the secretary and treasurer of the State Association; of the president of our Blue Shield Plan; of the editor of the *Journal* and of our present trustee of the A.M.A. The reason that I bring that to your attention is to show you the large amount of business and varied discussions which necessarily come before the Council.

One very important member that I neglected to mention was our executive secretary. In the report of the executive secretary, the treasurer, the secretary, the editor of the *Journal* you have in essence any report which as chairman of this committee I could give you. Some additional information as to the work that we have done this year will become evident as I present certain resolutions which Council has passed on and which we are offering to the House of Delegates today for their consideration.

I think one specific thing should be mentioned and that is the wholehearted support and cooperation which the Council has received during this year and last year by you, as individuals and as members of your component county societies in our legislative fight against the naturopaths. There were times during the last two years when I felt that that probably was all that council was doing because it took up so much time with so many people; and you have heard our executive secretary tell you it was finally brought to a successful conclusion and we hope the Supreme Court will hold as constitutional the act as passed.

No one realizes more than I do that this terrific battle, and believe me it was terrific, could not have been won without the support at home that you men were able to give. And when we realize the strength that we mustered in this fight—we must not fail to realize the potential strength that we have to overcome problems in the future by closely uniting ourselves as we have proved that we could do. We have unlimited strength. This strength, of course, is to be used in the right direction. We have no idea of oppressing any group or anybody, but when the time comes that we are in danger of being oppressed, as it has in the past and probably will come in the future, we should rise up and show this strength. It has been demonstrated once and we know that it is there. Again I wish to thank you for myself and for the Council for your cooperation in the past two years.

Several recommendations have come up to Council during the year which I will read at this time and our president will refer them to the proper committee, at which time you will be free to discuss them and make any comments that you may wish to make. I would urge you to make all the comments that you want to, realizing that council has made these recom-

mendations so that they might be brought to your attention. We have considered them as important but we have not attempted to pass on them,—we are turning them over to you so that you in your wisdom and judgment can make the final decisions and we hope that you will take advantage of the reference committees to state your views so that we might know just exactly the way you feel.

#### Resolution:

I have here a resolution, Mr. President, from the South Carolina Mental Health Commission, which was adopted in principle by Council yesterday to be referred to the House of Delegates this morning. It has to do with patients who are admitted to the State Hospital and discharged.

(This resolution is read by Dr. Cain.)

#### SOUTH CAROLINA MENTAL HEALTH COMMISSION

April 17, 1956

Dr. Robert Wilson, Jr., Secretary

S. C. Medical Association

Dear Dr. Wilson:

I am writing you with reference to the problem of mental illness in our state. Our State Hospital now has 6,127 patients. Last year we had 2,283 admissions; 556 had been in the hospital more than a year previously and 1,727 were admitted for the first time. During that year, 1954-55, 845 patients were away from the hospital on trial visit or otherwise and returned to the hospital before the trial visit period of one year expired.

From these figures I think it is clear that our program for the care and treatment of the mentally ill breaks down at certain points. First, there is no one at home to work with the family of the patient when he or she has to leave and go to the hospital. Secondly, there is no one to be a liaison person between the hospital and the home while the patient is at the hospital. Thirdly, there is no one to work with the family in preparation for the patient's returning home.

Those of us charged with the responsibility of the care and treatment of the mentally ill have been concerned over this breakdown in our program and it appears that funds are not going to be available in the foreseeable future for the State Hospital to add sufficient personnel to its social service department to meet this need.

It appears to us that mental illness is just as much a health problem as any other illness and a part of our total health problem. With this thought in mind Dr. William S. Hall, Superintendent of our State Hospital, and I conferred with Dr. G. S. T. Peebles, State Health Officer, and Dr. C. L. Guyton, Assistant State Health Officer, to see if the State Board of Health with its county departments of public health could be of any assistance to us in meeting the needs mentioned above. This problem was discussed at length and it was agreed that the State Board of Health could be of assistance to us through its county units.

It was agreed further that the county health officers and nurses would need an orientation program at the State Hospital and that the hospital would give this program. After this orientation is completed the following procedures would be established.

1. When a patient is admitted to the hospital the health officer of the county from which the patient came would be notified, giving the name, home address and name of family physician.
2. The county nurse assigned to the case will contact the family physician, offer her services to the family and request his approval. She then will visit the family offering her services as a liaison person while the patient is at the hospital.
3. When the patient is ready to return home she will help prepare the family for his or her return and after his or her return will make visits from time to time

to determine the person's progress. If the person is not making a satisfactory adjustment she shall urge the family to take the person to the family physician for further advice. If it is felt necessary, a visit to the home by one of the hospital social workers can be requested. A report of the person's progress should be forwarded to the hospital.

4. If the patient is able to return home because of the use of some of the tranquilizing drugs and will have to continue on a daily maintenance dose, the family physician will be requested to supervise this treatment. If the person has no family physician, the family will be urged to secure one. If the family is financially unable to secure a physician, the county health officer will supervise the treatment.

We feel that this program must have the approval of the S. C. Medical Association. We respectfully request, therefore, that it be presented to Council at its next meeting for consideration and approval, and we will plan to be available at that time to answer questions or discuss the program in further detail.

Sincerely yours,

W. P. Beekman, M. D.  
Director Mental Health

DR. CAIN: That is the resolution as suggested by Dr. W. P. Beekman, the Director of Mental Health, and which was approved in principle by the Council.

THE CHAIR: This portion will be referred to the Reference Committee on Public & Industrial Health.

DR. CAIN (Continuing)

This is a resolution adopted by Council to be presented to the House of Delegates concerning a bill to change the status of the Armed Forces Medical Library. This is a communication from the librarian of the Medical College of South Carolina. (Reading)

"The Committee on Labor and Public Welfare held hearings on the bill about two weeks ago. Now the Committee is considering it. We were asked if we could rally support to this move to the Department of Health, Education and Welfare. We were told by the librarians at the Armed Forces Medical Library that letters from us, as librarians, would not carry too much weight, but that letters from doctors would."

The resolution is that we support the bill to change the status of the Armed Forces Medical Library.

The bill to change the status of the Armed Forces Medical Library is S-3430. The Committee on Labor and Public Welfare held hearings on the bill about two weeks ago. Now the Committee is considering it. We were asked if we could rally support to this move to the Department of Health, Education and Welfare. We were told by the librarians at the Armed Forces Medical Library that letters from us, as librarians, would not carry too much weight, but that letters from doctors would.

THE CHAIR: This portion will be referred to the Reference Committee on Legislation and Public Relations.

DR. CAIN (Continuing):

The next is a bill presented by the State Health officer to this council and approved in principle by council for presentation to the House of Delegates. It concerns the United States Narcotic Problem.

"1. Whenever an affidavit duly verified by an authorized enforcement agent or a medical physician claiming to have knowledge of the facts and setting forth that any person named or described therein is a habitual user, without bona fide medical need thereof, of a narcotic drug, as defined in (cite State Narcotic Act), shall be filed with the county attorney or any county or the city attorney of any city in which such alleged habitual user is or may be found, such county attorney or city attorney under his hand shall issue a notice requiring the person so named or described to appear before a judge of the (district) court, the

county or the (corporation) court of the city, in chambers, at a time and place specified in such notice and shall cause a copy thereof to be served by the sheriff or other court officer duly qualified to serve process in civil or criminal cases upon the person so named or described no less than two days before the date specified for such appearance. Copy of such notice shall be transmitted by mail to the State Commissioner of Public Health. The affidavit and the original notice with proof of service shall be filed with the clerk of the court at or before the time specified for such appearance, but the same and the other records and files of the proceedings shall be open for inspection only by the person named or described therein or his counsel and by a public officer.

"2. At the time and place specified in the notice, the person named or described in such notice or his counsel being present, the judge shall hear the evidence presented, and upon being satisfied that the allegations contained in the affidavit are true, shall make and file an order requiring such habitual user forthwith to take and continue, until otherwise ordered by the court with the advice and consent of the State Commissioner of Public Health, treatment for the cure of such habit at a public institution, other than a penal institution, selected by the State Commissioner of Public Health, and at the expense of the county or city. The order shall further require reports to be made to the court and to the State Commissioner of Public Health at stated intervals therein specified by the physician or superintendent in charge, as to the effect and progress of the treatment. A copy of the order forthwith shall be served upon said user. In no case, however, shall any habitual user of said narcotic drug be required to continue treatment under such order for a period longer than two years.

"3. Any person named or described in a notice so issued by the county attorney or the city attorney and duly served upon him and who shall fail, refuse, or neglect to appear at the time and place therein specified, or any person named or specified in the order so made and served, and who shall fail, refuse, or neglect to comply with the terms and conditions or such order shall be deemed guilty of contempt of the court and shall be proceeded against accordingly."

(Suggested State Law by Federal Bureau of Narcotics)—Amendment

THE CHAIR: This portion is referred to the Reference Committee on Legislation and Public Relations.

DR. CAIN (Continuing)

This resolution was adopted by council yesterday and is self-explanatory. (Reading resolution)

"BE IT RESOLVED, that the House of Delegates of the South Carolina Medical Association commend the Governor and the members of the General Assembly for their courageous and inspired act in adopting the laws outlawing the practice of Naturopathy in the State of South Carolina, on behalf of the public and in the interest of their better health;

And that the Secretary of the Association be directed to inform the Governor and the General Assembly of this action."

THE CHAIR: This resolution is referred to the Reference Committee on Legislation and Public Relations.

DR. CAIN (Continuing): (Reading Resolution)

"That the House of Delegates of the South Carolina Medical Association, as individuals and as a group, opposes the passage of the Social Security Bill (#7225) now under consideration in the United States Senate, in its provisions for reducing the age at which social security benefits for women begin, in allowing benefits for total disability, and in requiring compulsory social security coverage for unwilling professional groups.

"And that the Secretary be directed to inform the

South Carolina members of the United States Senate and House of Representatives of this action, as well as Senator Byrd, Chairman of the Finance Committee of the U. S. Senate, "And that individual physicians be urged to inform their Congressional representatives of their feeling in this matter."

THE CHAIR: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

DR. CAIN (Continuing): I would like to emphasize any action which the House of Delegates takes on this resolution does not take from us the responsibility, as individual doctors, to write our representatives and senators, as such. We realize full well that this resolution could not take the place of individual letters, not by any manner of means. It is much more important for our representatives to receive many pieces of mail concerning this legislation from individual citizens who are voters, rather than from a group such as this.

The purpose of this resolution is to express officially the feeling of the South Carolina Medical Association. But I do urge each of you as soon as you get home, and I mean just as soon as you get there, not next week or next month, because this thing is urgent, it is in the Senate Finance Committee at the present time and I understand it has already been voted on and stands a good chance of being put on the floor of the Senate this week. So that, if you gentlemen feel that way about it, please write primarily to the senators, Senator Wofford and Senator Johnston and in case the Senate does not go along with the House version of the bill and it will be referred to a committee for arbitration, it would be a good idea, also, to write to members of the House of Representatives who may be contacted again concerning this, even though they have passed it last year.

DR. CAIN (Continuing report):

Dr. Goldsmith handed me a while ago a resolution concerning Social Security which was passed by the Texas State Medical Association, and it seems as though I have misplaced that but I will give it to the President who will refer that to the same reference committee who has the original resolution, so that it can be considered at that time.

This is a resolution adopted in principle by the Council which was sent to us by the Albemarle County Medical Society of Virginia.

Whereas 38,000 persons are killed annually by highway accidents and over a million suffer crippling injuries; and

Whereas this toll of death and injury can be sharply reduced if the people have the will to adopt, apply, and enforce reasonable restrictions on the use of motor vehicles; and

Whereas we warmly commend much of the legislation on this subject, including the use of radar in checking the speed of motor vehicles on Virginia highways, but we believe there is imperative need for strengthening Virginia laws and their application with respect to drunken driving, since 25.8% of the fatal accidents on the Virginia highways last year involved a drinking driver, and we believe there is imperative need for legislation national and state requiring of all manufacturers of automobiles that they meet such basic minimum safety requirements as may be reasonable established under appropriate governmental authority; it is

Resolved, that the Albemarle County Medical Society requests the Legislature of Virginia that the Code of Virginia be amended:

1. To provide that in any criminal prosecution for driving while under the influence of intoxicating liquor the accused or the Commonwealth shall have the right to a determination of the amount of alcohol

in the blood of the accused at the time of the alleged offense as shown by a chemical analysis of blood, breath or other bodily substance. Such determination shall be admissible in evidence together with any other competent evidence bearing upon the question of whether or not the defendant was under the influence of intoxicating liquor. It is suggested that to achieve this end the provisions of the Uniform Vehicle Code, Section 11—902 (b) 1, 2, 3, and 4 be adopted. Under these provisions 0.15% or more by weight of alcohol in the blood of the accused establishes a presumption of intoxication.

2. To provide for a mandatory jail sentence of at least 24 hours in all cases of conviction of driving while under the influence of intoxicating liquor.

3. To provide that approval of safety belts as used in motor vehicles be required as other safety equipment is required to be approved under Section 46—311 of the Code of Virginia.

Members of the House of Delegates, this resolution was presented to you gentlemen, not to be adopted as such, but as information, thinking that the House of Delegates probably would like to pass some resolution concerning the public safety on the highways of South Carolina, and it is given to you as information.

THE CHAIR: This will be referred to the Reference Committee on Reports of Council and Officers.

DR. CAIN (Continuing his report)—This is a resolution presented to Council by the Greenville County Medical Society concerning the Brieker Amendment and which was adopted by the Council and passed on to you for your consideration.

WHEREAS, the federal government of the United States was established to protect the individual liberties of its citizens; and

WHEREAS, until recently provisions of the United States Constitution appeared adequate for this purpose; but

WHEREAS, a new legal device in the form of legislation by international treaty has been devised which permits the evasion and nullification of rights guaranteed individuals by the Constitution, thereby endangering the personal liberty of all citizens of the United States; and

WHEREAS, the so-called Brieker Amendment has been devised to safeguard the liberty of United States citizens by reaffirming beyond question the supremacy of the United States Constitution over any and all conflicting international treaties; and

WHEREAS, this proposed amendment has received the endorsement of the American Bar Association, the American Medical Association, the American Legion and hundreds of other patriotic organizations; therefore, be it

RESOLVED, That the Greenville County Medical Society endorse wholeheartedly the so-called Brieker Amendment, and herewith urge the United States Senate to approve this legislation and to submit it to the several states for ratification; and be it further

RESOLVED, That copies of this resolution be forwarded by the Secretary to the United States Senators and Congressmen from South Carolina, the President and Secretary of the South Carolina Medical Association, and the Governor of South Carolina.

THE CHAIR: This will be referred to the Reference Committee on Legislation and Public Relations.

DR. CAIN (Continuing report)—This is a resolution presented by Council through its councilor from the Fifth District. From the Kershaw County Health Department.

"Whereas, diphtheria and pertussis and to a lesser degree tetanus are deadly contagious diseases which take a terrible annual toll among the citizens of the State of S. C. and,

Whereas, diphtheria, pertussis and tetanus are sep-

arately and collectively preventable in persons from a very early age, and Whereas, the State of S. C. provides through the State Board of Health suitable and effective materials which successfully immunize susceptible persons,

Be it Resolved, That the Kershaw County Medical Society go on record as favoring state-wide legislation, at the ensuing session of the S. C. State Legislature, whereby it shall be illegal for any child to be deprived of such protection later than its first annual birthday.

Furthermore, Be it Resolved that the Councillor for the 5th Medical District be requested to present the above facts and petition to the S. C. State Medical Council for their consideration, endorsement and appropriate action leading toward enactment of enabling legislation pertinent to the same.

Respectfully submitted,

A. W. Humphries, M. D., Chm.

C. H. Zemp, Jr., M. D.

Viola D. Nelkin, M. D.

THE CHAIR: This resolution will be referred to the Reference Committee on Public & Industrial Health.

DR. CAIN—Continuing his report:

Now, gentlemen, this last resolution which we have to present is one that is extremely important and one which council has worried with continually for the past several years and its final decision, to bring it to the House of Delegates, is self-evident in this resolution.

#### RESOLUTION CONCERNING IRREGULAR PRACTITIONERS

Having just been through a rather gruelling and tempestuous fight with irregular practitioners in our State, one that I am sure each member of our Association will long remember, it becomes time for a re-evaluation of another problem now present within our State, which some people feel may eventually lead to a similar situation.

As you remember, several of the naturopaths who are now practicing in this State originally came to South Carolina not as naturopaths, but as M. D.'s who had graduated from unapproved medical colleges and, therefore, were ineligible for licensure to practice medicine in this State after their tenure as interns, residents, or associated practitioners had expired. Those of us who remember several years back will understand the trials that the Association went through in trying to be fair to these men who had come down during the War periods to help us out. However, nothing could be done since they were not trained in approved institutions, and they either had to leave the ranks of allopathic medicine and join a cult of some sort, or else return to medical college and graduate from a grade A school before they could be licensed to practice.

In 1951 the House of Delegates of this Association was determined not to let such an occurrence happen again and at that time a resolution was adopted by the House of Delegates concerning the association of members of the South Carolina Medical Association with practitioners who had not graduated from approved medical colleges. This is rather a strong resolution and one which applied to practitioners who were to be in active practice and also to interns and residents in hospitals in the State. At the present time we have practicing within our State several graduates of unapproved medical colleges. The majority of these are in State institutions and Council has continually wrestled with what to do about this problem. Council has decided to again bring before the House of Delegates this question for re-consideration, and to ask whether or not the House of Delegates wishes the original Resolution enforced, or whether they would like it to be repealed.

Gentlemen, this is not a recommendation from Comm-

oil, it is tossing back into your lap a rather perplexing problem.

THE CHAIR: This part will go to the Reference Committee on Reports of Council and Officers.

DR. JOE CAIN—(Continuing his report)—We have resolved two changes in the By-Laws for your approval.

One is a person who graduates or completes his residency or intern training in the middle of the year thereby being eligible for only a half-years membership in our association be charged only one-half a year's dues.

The other is, that for the sake of consistency that the Committee on Maternal Welfare be changed to "Maternal Health" and the name of the Committee on Infant Mortality be changed to the Committee on "Infant and Child Health."

THE CHAIR: These will be referred to the Reference Committee on Constitution and By-Laws.

DR. JOE CAIN: Mr. President that concludes my report and I am sorry that I mislaid Dr. Goldsmith's resolution. (Applause)

THE CHAIR: If there is no objection, when Dr. Cain finds the resolution the Chair will refer it to the Committee that he feels is appropriate. Dr. Cain, we thank you very much. (Applause)

Next we will hear from the delegates to the A. M. A., the senior delegate Dr. William Weston, Jr.

#### REPORT OF DELEGATE TO THE AMA FROM THE SOUTH CAROLINA MEDICAL ASSOCIATION

The Civil Defense invited the delegates to attend a meeting in Atlantic City, June 4, 1956 just prior to the annual meeting of the AMA. Senator Kefauver addressed the assembly emphasizing the importance in preparedness and the part that Civil Defense should play in taking care of the citizenry.

A movie was shown of an evacuation of the wounded from a bombed-out city to a nearby city, approximately 60 miles distant. All hospitals in the recipient city had been alerted, having their staffs prepared and functioning to receive the mangled and disabled persons. Transfusions and plasma played a big role as the loss of blood and burns were the most striking accidents, plus fractures.

A 200 bed ward, as an emergency unit had been set up in the auditorium, which was inspected by many of the visiting doctors.

#### THE A.M.A. MEETING IN ATLANTIC CITY JUNE 6-10, 1955

1—The big news was the Salk Vaccine. I had the honor of presiding as the chairman of the pediatric section of the panel when the distinguished group presented their research finding with the clinical results. Dr. Jonas E. Salk was presented with a gold medal from the AMA by Dr. Elmer Hess, our president, and a check for \$10,000 for his (Salk's) personal use. It was an auspicious occasion and the auditorium was overflowing with an estimated more than 5,000 individuals attending.

Appropriate resolutions were passed by the Health Hygiene Industrial Committee which will be found in the JAMA June 9, 1955, Page 848.

2—The No. 2 item was the osteopaths—should they and their schools be accepted by the AMA. It was voted unacceptable unless they amend their code and conform to the principles and beliefs of the AMA.

3—The American Medical Education Foundation—There are 153,000 members of the AMA. 125,000, plus, are dues-paying members. \$100,000.00 had been previously donated for, I believe, two consecutive years at the AMEF, but the finances of the AMA did not warrant it this year, 1955, nor had the individual doctors contributed their proportionate share, as had been hoped. A \$50.00 bill from each doctor would add seven million dollars to this fund. If we

do not give to our dire needs of the medical schools then the philanthropic bodies, such as Rockefeller, Ford, drug houses, industries, etc., will withdraw their donations. Each of us must think of this seriously and give a minimum of \$10.00 to our chosen medical school.

The Interim or Clinical Session held in Boston November 29 - December 2, 1955 was well attended. The Mechanics Hall, where the meeting was held is a real old building and not too inviting. The role and importance of the general practitioner was emphasized.

#### LEGISLATIVE MEETING IN ATLANTA NOVEMBER 1955

The HR 7225 was discussed in detail. It is urged that each member of their separate State Medical Associations contact their senators of our opposition to the bill in the present form. There are three (3) main objections:

- 1—Reduction of the women's age from 65 to 62.
- 2—The disability beginning at age 50 which would certainly interfere with the rehabilitation program.
- 3—The opposition to the Social Security except on a voluntary basis.

It has been a privilege to be your representative and delegate (Applause)

William Weston, Jr.

**THE CHAIR:** This report will be referred to the Committee on Reports of Council and Officers. Next we will hear from the junior A.M.A. Delegate, Dr. George Dean Johnson.

#### REPORT OF DELEGATE TO THE AMA

At the meeting in Boston many important subjects were discussed. Social Security as extended in HR 7225 was widely discussed and condemned. This law would grant to "totally and permanently disabled" persons outright grants. The catch is—when is a person totally and permanently disabled.

In connection with Social Security the House of Delegates urged that a well qualified commission be established to study all ramifications of Social Security, medical and otherwise, in order that the American people might have a clearer idea of what happens to the money paid into Social Security. The AMA pledged its full cooperation in a study of medical aspects of disability, rehabilitation, and medical care of the disabled and that copies of these suggestions be transmitted to the President, Cabinet members, all members of Congress, and to all constituted state medical associations.

It was urged that all state medical associations poll their entire membership on the question of whether physicians should participate in Old Age and Survivors Insurance provisions of Social Security on a compulsory or voluntary basis. (This has been done in S. C.) There is a sharp difference of opinions as to whether a doctor should be compelled to participate. In a great many sections of our nation such an idea is abhorrent. In other sections it is felt advisable to participate. When the time comes to vote please express an opinion as otherwise the Board of Trustees will have no idea how to recommend to the Washington office.

One of the most interesting discussions concerned that on medical practice. The general practitioners are up-in-arms and rightly so in some areas because they are being or have been squeezed from hospital staffs. In some hospitals a GP can not even sew up a laceration half an inch long or care for a patient on pediatrics or on medical wards. Thank heavens such doings haven't come about in South Carolina and there is no reason why they should. The reference committee took a very strong stand, which was wholeheartedly endorsed by the House. It was suggested that a continuing committee on medical practice be established composed of five men—three of

whom should be general practitioners—to study the relative value of diagnostic medical and surgical services. That this committee be directed to stimulate the formation of a department of general practice in each medical school. That seemed rather odd to those of us from South Carolina. That the representation of the AMA on the Joint Commission on accreditation of Hospitals be instructed to stimulate action by that body leading to warning, provisional accreditation, or removal of accreditation of community or general hospitals which exclude or arbitrarily restrict hospital privileges for generalists as a class regardless of their individual professional competence after appeal to the Commission by the County Medical Society concerned. That the committee cooperate in every way and assist the Public Relations Department of the AMA to bring about a better understanding of the public concerning all aspects of medical practice. That the committee use its full influence to discourage any arbitrary restrictions by hospitals against general practitioners as a group or as individuals. The Board of Trustees further recommended that all non-surgical groups should be asked for their suggestions and cooperation in carrying out a public education program on the value of diagnostic and medical work that the various specialty boards should be encouraged to reappraise the practice restrictions on their board diplomates. That organized medicine is ready, willing, and able to solve satisfactorily its own problems and such assurance should be given to the American Hospital Association or any other group concerning itself with such problems.

The House of Delegates reiterated its stand on the distribution of Polio vaccine through commercial channels. The House felt that it should be treated like any other vaccine—to the indigent free—to those able to pay through the doctors office.

The American Medical Education Foundation was discussed. Business houses are not anxious to contribute to the doctors' foundation when the doctors don't support that foundation too well themselves. Utah every year hands the treasurer a check for \$11,000.00. The Medical Association assesses each doctor, with his approval, a sum sufficient to raise the money. California's check is for \$25,000.00.

Dr. Hess reported to the House of Delegates that in all his talks on radio, television, and before the public he is emphasizing the point that doctors take care of the sick, period. He called attention to the difficulties between anesthesiologists, radiologists, and pathologists and hospital administration and hoped that all their differences could be settled amicably. He also felt that the differences between the faculty of a medical college and the physicians practicing in the locality could be ironed out satisfactorily.

He felt that the difficulty in the Armed Services medical corps was one of economics and could be straightened out with understanding of all concerned. He also discussed H. R. 7225 which concerns permanent and total disability. This phase has been thoroughly discussed since by many experts as well as by Mr. Folsom, the man who is largely responsible for the Social Security program itself. He is very much against it because of the reasons with which all doctors are familiar.

The House of Delegates again urged the auto manufacturers to install safety devices and again there was a complete and well arranged display in the scientific exhibits on this subject.

After invitations had been received from Dallas, Denver, Houston, St. Louis, Washington, D. C., and Minneapolis it was decided to accept that from Minneapolis for the 1958 clinical session.

Your delegates were joined by a number of members of this association not only in the House of Delegates but also in the committee hearings.

In one on the subject of teaching in medical schools someone advocated a course in general practice. Dr. Robert Wilson spoke against this idea because neither he nor I could understand how a general practitioner could be taught the signs and symptoms of appendicitis any differently from a surgeon in medical school. It is good to see any physician take part in these reference committee meetings and your delegates hope that more of you will join us in these important deliberations. That is a place where the policy of the AMA is formed and you and I are the AMA.

Dr. Weston and I are looking forward to the opportunity of doing what we can to re-elect to the Board of Trustees Julian Price who has served so well and so conscientiously. He will be nominated to succeed himself at the meeting in June. We hope we are successful.

It is important to understand that only the high spots can be touched in a report of this kind. It's impossible to mention everything discussed. Whatever you are interested in can be looked up in the Journal of the AMA because it prints in detail everything that transpires. Or if your delegates or trustee can help, please call on us, because we are in the House of Delegates and Julian Price is on the Board of Trustees to represent you, the Members of the AMA. We consider it a privilege to represent you and thank you for the opportunity. (Applause)

G. D. Johnson, M. D.

THE CHAIR: Thank you Dr. Johnson. This report will be referred to the Reference Committee on Reports of Council And Officers.

THE CHAIR: I see that two very distinguished ladies have come into the room, and I will ask Dr. Barron to please escort them to the platform. It certainly is nice of these ladies to come. We are very honored to have the President of the Auxiliary of the South Carolina Medical Association and the president-elect with us. (Mrs. May brought greetings and introduced the incoming president Mrs. Gordon Able of Newberry, who thanked the doctors for their wonderful support in the past and pledged the loyal service of the auxiliary to their organization.) (Applause)

THE CHAIR: I thank Mrs. May on behalf of the association for her loyalty and untiring efforts. She has been most devoted and has helped us in every way possible. And to Mrs. Able I want to assure her this association will give her every help we can. We appreciate your coming. This has been a very pleasant break in our deliberations. We thank you. (Applause)

THE CHAIR: The reports of the standing committees have been published in the Journal. I shall call on the chairman of each standing committee for any supplemental report that he may have. (The Committees are called)

No. 1 SCIENTIFIC PROGRAM—Dr. Henry Mayo of Charleston, Chairman. (Dr. Mayo was absent) In the absence of Dr. Mayo would any other member of the committee wish to make any report? This committee has done an outstanding job and I know you will appreciate and enjoy the program that they have arranged. This report is referred to the Ref. Committee on Reports of Council and Officers.

No. 2 The next standing committee—LEGISLATION AND PUBLIC RELATIONS—Dr. F. C. Owens of Columbia, Chairman.

(There was no supplemental report and The Chair referred the report to the Committee on Legislation and Public Relations.)

No. 3 The next standing committee—PUBLIC HEALTH, Dr. D. C. Alford, of Spartanburg, Chairman. Hearing no supplemental report the report of this committee will be referred to the Reference Committee on Public and Industrial Health.

No. 4 The next standing committee—MEMORIAL COMMITTEE—Dr. C. R. F. Baker, of Sumter,

Chairman. Is there any supplemental report? Hearing none this will be referred to the Reference Committee on Miscellaneous Business.

No. 5 The standing committee on MATERNAL HEALTH—Dr. Frank Geibel, of Columbia, Chairman. Dr. Geibel has been indisposed for several months, has any member of his committee a supplemental report? If not, it will be referred to the Reference Committee on Public & Industrial Health.

No. 6 The Standing Committee on INFANT AND CHILD HEALTH—Dr. John C. Bommer, of Charleston, Chairman. (There was no supplemental report) This report will be referred to the reference committee on Public & Industrial Health.

No. 7 The Standing Committee—CANCER COMMITTEE—Dr. J. R. Young, of Anderson, Chairman. Is there a supplemental report? Hearing none the report will be referred to the Reference Committee on Public & Industrial Health.

No. 8 The Standing Committee—GRIEVANCES & MEDIATION—Dr. Roderick Macdonald, of Rock Hill, Chairman. Is there any supplemental report? If not this will be referred to the Reference Committee on Miscellaneous Business.

There are Special Committee reports.

No. 1 VETERANS MEDICAL CARE—Dr. L. P. Thackston of Orangeburg, Chairman. (There was no supplemental report) This report will be referred to the Reference Committee on Miscellaneous Business.

No. 2 SPECIAL COMMITTEE ON SALK VACCINE—Dr. William Weston, Jr., of Columbia, Chairman. (There was no supplemental report) This Committee report will be referred to the Committee on Public and Industrial Health.

No. 3 HISTORICAL MEDICINE—Dr. J. I. Waring, of Charleston, Chairman. (There was no supplemental report) This report will be referred to the Reference Committee on Miscellaneous Business.

No. 4 MEDICAL & HOSPITAL INSURANCE CONTRACTS—Dr. J. P. Cain, Chairman. (There was no supplemental report) This report will be referred to the Reference Committee on Insurance, Blue Cross and Blue Shield.

No. 5 RURAL HEALTH—Dr. C. R. May, of Bennettsville—Chairman. (There was no supplemental report) This report is referred to the committee on Public & Industrial Health.

No. 6 CARE OF THE INDIGENT—Dr. Norman O. Eaddy of Sumter—Chairman. (There was no supplemental report) This was referred to the Reference Committee on Public & Industrial Health.

No. 7 ADVISORY COMMITTEE CRIPPLED CHILDRENS' SOCIETY OF SOUTH CAROLINA—Dr. J. I. Waring of Charleston, Chairman. There being no supplemental report this will be referred to the Reference Committee on Public and Industrial Health.

No. 8 INDUSTRIAL HEALTH—Dr. J. L. Hughes, of Greer, Chairman. There being no supplemental report this is referred to the Reference Committee on Public & Industrial Health.

No. 9 ADVISORY COUNCIL TO THE WOMAN'S AUXILIARY—Dr. Walter R. Mead, of Florence. There being no supplemental report this report is referred to the Reference Committee on Miscellaneous Business.

No. 10 CARE OF THE PATIENT—Dr. E. C. Hood, of Florence, Chairman. There being no supplemental report this report is referred to the Reference Committee on Public & Industrial Health.

No. 11 CORONER'S MEDICAL EXAMINER—Dr. Strother Pope, of Columbia, Chairman. (There was no supplemental report) This report is referred to the Reference Committee on Legislation & Public Relations.

No. 12 SCHOOL HEALTH—Dr. John Paul, of

Charleston, Chairman. There being no supplemental report this report is referred to the Reference Committee on Public & Industrial Health.

No. 13 MEDICAL EDUCATION FOUNDATION—Dr. R. L. Crawford, of Lancaster, Chairman. Have you any supplemental report, Dr. Crawford?

DR. CRAWFORD (Recognized)—Because of the fact that so few people know what the medical education committee means I would like to explain a little bit about why it was founded. About five years ago it became known that the eighty-one medical schools in the United States were running into an operating deficit of about ten million dollars. Forty-two of these schools were privately owned and operated schools and the remainder were state operated by taxes. The privately owned schools received all of their support from four sources, to-wit, city and county, state taxes, grants from foundations, and industry and these were failing to make up enough money to take care of their deficit. So, the American Medical Association and industry got together and were aware of this fact that it was going to have to come from two sources—further private contributions from the general public and industry, or from federal intervention. Now, federal intervention would leave the argument wide open or give the social planners a good argument to establish federal intervention and thereby make a big inroad towards socialized medicine. Therefore, industry agreed to raise eight million of this ten million dollars provided the doctors would raise two million. The National Medical Education Fund was established by industry, and the American Medical Education Foundation was established by the American Medical Association. The American Medical Education Foundation was composed of medical education committees from each state, the chairman of which committees meet each year in Chicago to formulate plans for collecting the two million dollars the doctors are supposed to raise.

In South Carolina this year we have sent out one letter. On this letter we have collected six hundred eighty (\$680.00) dollars that I have sent in to the American Medical Education Foundation and there are other contributions that have been made to the foundation through grants to alumni associations. Now, all these grants to alumni associations should be included in the amount that is contributed by the doctors and it would be a great help if the secretary or treasurer of the alumni Association would mail to Mr. John W. Hedback, Chicago, the amounts the alumni associations have contributed to their own medical schools. I don't think South Carolina, so far, has gotten credit for all the alumni association has contributed to its college because in the past year, in 1955, I think it was about thirty-eight hundred (\$3800.00) dollars, around four thousand (\$4000.00) dollars that we have gotten credit for.

In previous years I am pretty sure we didn't get this credit because the alumni association contributed considerable money towards building the dormitory. I would appreciate it if each delegate to this association would take back to their county societies some of the information that can be obtained at the booth outside; and let the men know in each society that it is really important to contribute that \$10 to this fund, otherwise some other method will have to be used to raise it.

We have very little money to write you two or three times a year or every few weeks to please send in your contribution. We will only be able to send you two or three requests, so please don't lay them aside, like so many have done, and pay no attention to them and forget them in just about two weeks. Thank you. (Applause)

THE CHAIR: This is perhaps one of the most important messages that we have had today. It is a very

urgent matter and it is a matter that has far reaching possibilities. The contributions that are asked for are an effort to keep medical education free and away from government control and I hope you will give it serious consideration and I hope you will go further and dig deep in your pockets and send it to Dr. Crawford.

Dr. Crawford's report will be referred to the Committee on Miscellaneous Business.

At this time Dr. Cain has an additional report to make. Dr. Cain.

DR. JOE CAIN: This report was deferred a few minutes ago until after Dr. Crawford had reported for his Committee.

As Dr. Mayer just said, it is a very important report and one which should receive the consideration of each individual doctor. It is so important that Council has felt it necessary to make a special resolution for your information. (Reading)

#### RESOLUTION FROM COUNCIL TO THE HOUSE OF DELEGATES FOR ITS INFORMATION

Concerning the report just presented by Dr. R. L. Crawford, Chairman of the State A.M.E.F. Committee, the Council approves the proposals made by this Committee and urges whole-hearted support and participation by the members of the South Carolina Medical Association.

Since Medicine is called upon to raise only two million dollars out of ten million, the balance to be raised by contributions from private industry, and since private industry has the feeling that Medicine is falling down on its part of the contribution and, therefore, is reluctant to continue its 80% contributions to this cause, we feel that organized medicine stands, not only to lose this additional eight million dollars, but also to lose the moral support and strength of private industry which has allied itself with us in our past battles for free enterprise, and whose support we feel it is necessary to maintain in the future. Enterprise is no longer free when we allow the Federal Government to intervene in any way, however slight.

Therefore, Council considers this proposal of such importance that should the voluntary contributions year by year fall below our allotted quota of \$12,000, that next year in order to raise this amount, the dues to the State Association will have to be increased accordingly. Since none of us like to think of an increase in dues it is our earnest plea that we accept our responsibility as individual physicians and make the necessary voluntary contributions.

J. P. Cain, Jr.

Chairman, Council

THE CHAIR: This resolution will be referred to the Reference Committee on Miscellaneous Business.

I believe the Secretary has a resolution to be read, Dr. Wilson.

DR. ROBERT WILSON: We have found Dr. Goldsmith's resolution and Dr. Cain asked me to read it. (Reading)

"WHEREAS, the House of Delegates of the South Carolina Medical Association on several occasions has expressed its opposition to compulsory Social Security and any extensions thereof; and

WHEREAS, there has never been an adequate, objective, unbiased study of the nature, cost, and scope of the Social Security System and its economic, social, and political impact on the American people; therefore

BE IT RESOLVED, that the House of Delegates of the South Carolina Medical Association urge the creation of a well qualified commission to make a thorough, objective, and impartial study of the economic, social, and political impact of Social Security, both medical and otherwise, and that the facts developed by such a study be the sole basis for

objective, non-political solution to the Social Security issue, and  
BE IT FURTHER RESOLVED, that the House of Delegates of the South Carolina Medical Association urge that the consideration of H. R. 7225 be delayed until such study is completed, and  
BE IT FURTHER RESOLVED, that a copy of this resolution be spread upon the minutes of this meeting and that a copy be forwarded to the President of the United States, to Senators Johnston and Wofford, to the Chairman of the Senate Finance Committee, and to members of the Board of Trustees and the Committee on Legislation of the American Medical Association.

THE CHAIR: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

Are there any other committee reports?

DR. GOLDSMITH (Recognized by the Chair) If I am not out of order may I make one remark in regard to that resolution?

THE CHAIR: Dr. Goldsmith, you may. Ordinarily the remarks are made in the Reference Committee. I will be glad to indulge you for a few minutes.

DR. GOLDSMITH: What I want to say was this is a copy of a resolution that the State of Texas adopted at their last meeting and Dr. Mel Roberts, who was present at the hearing in Washington at the Finance Committee, sent me that last Monday. He and Dr. Blasingame of Texas, I know personally and they are back of this particular resolution.

THE CHAIR: Thank you, Dr. Goldsmith.

Are there any other committee reports?

(At this time the Chair thanked the reporter, Mrs. Wallace for her years of service to the association; also the services of Mr. S. Powell were recognized, he having been in charge of things electrical, and operating the slides at the scientific sessions for many years. (The delegates applauded.)

THE CHAIR: Is there any unfinished business? (There was none)

Is there any new business? (There was none)

Dr. Cain, I notice we have a little time before the Special Order. I am wondering if you would like to utilize this time in discussing or informing the delegates about the insurance plan. I don't mean to put you on the spot at this time, perhaps you would rather take it up at another time?

DR. CAIN: Gentlemen, I have no further report to make to you from the Insurance Committee other than the report that has been published and concerning which you have received letters. However, if there are any questions about the new program which our committee has seen fit to recommend, anything that is not clear, or any suggestions or criticism you have to make, I would be glad to discuss it with you during these few minutes. If there is no discussion, I would suggest to you that we have the representative of our insurance company, which is the Educators Mutual Insurance Company from Lancaster, Pa., in the lobby. They have a booth set up and would like to talk to you and explain any provisions of the plan which are not clear.

THE CHAIR: Thank you, Dr. Cain.

(Dr. Clay W. Evatt reported to the stenographer that there were 60 delegates registered and turned in the credentials.)

As you know the commercial exhibitors make it largely possible for this meeting to be carried on in the manner that it is, and they would appreciate seeing you.

We will grant a fifteen minutes recess before the Special Order of business at 12:15. I would ask you to be back promptly at 12:15 because Dr. Guess has some very important news for you, and there are several changes in the by-laws of the corporation that

he will advise and recommend and this is important business and I am expecting each of you back at 12:15. (Fifteen minutes recess declared)

SPECIAL ORDER—The annual Meeting of the Corporation, The South Carolina Medical Care Plan. (The President's Address appeared in *The Journal* for July 1956)

CONCLUSION OF BUSINESS—Tuesday, May 15, 1956.

Adjournment until—Wednesday, May 16, 1956 at 9:30 A. M.

WEDNESDAY—MAY 16, 1956—9:30 A. M.

DR. O. B. MAYER, President, Presiding.

THE CHAIR: The meeting is called to order.

The first order of business are the reports of Reference Committees.

The first is the report of the Reference Committee on Reports of Council and Officers, Dr. W. T. Brockman, Chairman.

DR. BROCKMAN: (Reading) Mr. President and members of the House of Delegates, your committee has considered the reports made by the President, the Executive Secretary, the Secretary, Chairman of Council, the Editor of the Journal, and the Delegates to the AMA, and we feel that we are very fortunate to have such satisfactory reports from well chosen men. They keep our profession in tip-top condition. We want to recommend the acceptance of all of the reports and their incorporation into the record.

We further suggest that a committee of five be appointed by the President to study the question of foreign or Grade B graduates practicing within the hospitals or with individuals in South Carolina, and that this committee report back to Council when the study is completed."

Respectfully submitted,

W. Thomas Brockman, M. D.

Chairman

THE CHAIR: Mr. Chairman, would you want to make that as a motion?

DR. BROCKMAN: I make that as a motion.

(This motion was seconded by Dr. Cain; there was no discussion; the vote was taken and passed and it was so ordered.)

THE CHAIR: The next Committee Report—The Reference Committee on Legislation and Public Relations, Dr. T. R. Gaines, Chairman.

DR. GAINES: (Reading) To the House of Delegates of the South Carolina Medical Association—Report of the Reference Committee on Legislation and Public Relations.

"The report of the standing Committee on Legislation and Public Relations was reviewed. It is our desire to commend this Committee for its excellent and effective work in promoting the passage of legislation outlawing naturopathy, and in its opposition to the law expanding optometry. It is noted that the standing committee recommends approval of the resolution from the Kershaw County Medical Society that legislation favoring compulsory diphtheria immunization of all children before they reach their first birthday be adopted. Your reference committee, while agreeing with the recommendation in principle, believes that such a law would be difficult to enforce, and, therefore, disapproves this portion of the Committee's report." On behalf of the Committee, the Chairman so moves.

(This motion was seconded by Dr. Guess; there was no discussion; the vote was taken and passed; it was carried.)

Dr. Gaines: (Cont. his report) "The portion of the report dealing with Noise in Industry and recommending that further study be made before promoting legislation in this field, is approved by your reference committee."

Your committee approves that recommendation and

the Chairman so moves.

(This motion was seconded by Dr. Guess; there was no discussion, the vote was taken and passed and it was carried.)

Dr. Gaines: (Cont.) "Your committee approves the report from the Committee on Coroners and Medical Examiners, and recommends its adoption. It is further recommended that this committee be commended for its studies and that it be continued." It is moved that this be adopted.

(This motion was seconded by Dr. Black; There was no discussion, the vote was taken and it was carried.)

Dr. Gaines (Cont. his report): "There were two Resolutions with reference to Social Security before the committee, one being the resolution drawn up by Council, and the other being a resolution proposed by Dr. Thomas G. Goldsmith and patterned after one accepted by the Harris County, Texas Medical Society, both dealing with H.R. 7225.

Dr. Gaines (Cont. his report): "This committee recommends that the resolution drawn up by Council be approved, and that portions of the resolution from the Harris County, Texas Medical Society in which it is recommended that a commission be created by the Congress of the United States for an overall and comprehensive study of Social Security as outlined in paragraphs 3 and 4, be incorporated into this enlarged resolution, thus creating a combination of the two."

Mr. President, it is moved that these two resolutions be combined and adopted.

THE CHAIR: It is moved that these resolutions be combined and adopted. Would the House like to have these resolutions read or this enlarged resolution read? Or are you ready to adopt it right there?

DR. CAIN: I move it be adopted as stated.

(This motion was seconded; there was no discussion; the vote was taken and it was passed.)

(The enlarged resolution is as follows)

"WHEREAS, the House of Delegates of the South Carolina Medical Association, as individuals and as a group, opposes the passage of the Social Security Bill (#7225) now under consideration in the United States Senate, in its provisions for reducing the age at which social security benefits for women begin, in allowing benefits for total disability, and in requiring compulsory social security coverage for unwilling professional groups, and

WHEREAS, there has never been an adequate, objective, unbiased study of the nature, cost, and scope of the Social Security System and its economic, social and political impact on the American people; therefore

BE IT RESOLVED, that the House of Delegates of the South Carolina Medical Association urge upon the Congress of the United States the creation of a well qualified commission to make a thorough, objective and impartial study of the economic, social, and political impact of Social Security, both medical and otherwise, and that the facts developed by such a study be the sole basis for objective, non-political solution to the Social Security issue, and

That the Secretary be directed to inform the South Carolina members of the United States Senate and House of Representatives of this action, as well as Senator Byrd, Chairman of the Finance Committee of the U. S. Senate, and

That individual physicians be urged to inform their Congressional representatives of their feeling in this matter."

Dr. Gaines (Continuing his report):

"The Resolution from Council commending the Governor and the Legislature of South Carolina for the enactment of legislation outlawing naturopathy is approved."

It is moved this be adopted.

(This motion was seconded by Dr. Johnson; there was no discussion, the vote was taken and it was carried.)

Dr. Gaines (Continuing his Committee Report)

"The Resolution from Council in reference to Senate Bill S-3430, recommending that the Armed Forces Medical Library be placed under the Department of Health, Education and Welfare, is approved. It is recommended that the Secretary be instructed to write Senator Lister Hill, Chairman of the Senate Committee on Labor and Public Welfare of our support in this matter."

I move the adoption of this portion of the report.

(This motion was seconded by Dr. Cain; there was no discussion; the vote was taken and it was carried.)

Dr. Gaines—(Cont. his Committee Report):

"The Resolution from Council pertaining to new laws relative to the treatment of narcotic addicts as suggested by the Federal Bureau of Narcotics was considered and it is recommended that no action be taken at the present time."

I move the adoption of this recommendation.

(This motion was seconded by Dr. Guess; there was no discussion, the vote was taken and it was carried.)

Dr. Gaines (Continuing his Committee report): "Finally, the Resolution adopted by the Greenville County Medical Society with reference to the Bricker Amendment was considered and your committee felt that it was incompetent to pass upon this matter and it is brought before the House without recommendation either for or against."

THE CHAIR: Does the House wish to take any action on the Bricker Amendment as proposed by the Greenville County Medical Society?

DR. WYATT (Recognized) I move the proposal as presented by the Greenville County Medical Society be adopted. (This motion was seconded)

THE CHAIR: You have heard the motion and the second, is there any discussion? (There was none) Are you ready for the question? (The vote was taken and passed)

FROM THE FLOOR: What is the recommendation of the Greenville County Medical Society?

THE CHAIR: Dr. Wyatt will you state the motion regarding the Bricker Amendment?

Dr. Gaines: Of course, appropriate substitutions will be made there in that final paragraph.

THE CHAIR: Is there any further discussion on this motion.

DR. GOLDSMITH (Recognized):

I find, as I have traveled around the country, a lot of doctors don't understand what the Bricker Amendment will do. It simply safeguards the Constitution of the United States from being overridden by a foreign ideology that has been creeping into the United Nations and particularly the I. L. O., the International Labor Organizations. If the United States adopts those covenants and they become treaties and they are the supreme law of the land, and they override any other treaty that we might have or any other law. And in this way socialized medicine will creep in through the back door. Now, we hear a lot of people say we don't need the Bricker Amendment to tie the hands of the president and the executives, but we do because in the original constitution, as they adopted it, the Bill of Rights, which was decent, that tied the hands of Washington, if anybody would know that—and one more to tie the hands of the executives won't hurt. Therefore, I hope you will adopt this in support of the Bricker Amendment. (Applause)

THE CHAIR: Thank you Dr. Goldsmith. Is there any further discussion? Are you ready for the question?

(The vote was taken and was unanimously carried.) It is so ordered.

DR. GAINES: Mr. Chairman, I move the adoption of the report as a whole, with the exceptions as noted?

(This motion was seconded by Dr. Cain; there was no discussion, the vote was taken and it was carried.) Thank you doctor.

THE CHAIR: The next is the report of the Reference Committee on Public & Industrial Health, Dr. George Dean Johnson, Chairman.

Dr. Johnson (Reading from his report)

"Report of the Committee on Industrial Health:

Dr. J. L. Hughes and his Committee have done a great deal of thoughtful work on their report. Since South Carolina is fast becoming industrialized, it is appropriate that this committee should become more and more important.

Recommendations are as follows:"

(To the Chair) Mr. President, I don't think it is necessary to take up each one separately. They were put down in this order in order that it might be clear. THE CHAIR: Suppose you read them first and we can decide later.

Dr. Johnson: All right. (Reading)

(Dr. Johnson read the first page of his report ending with the words "Your committee recommends the adoption of this report.")

THE CHAIR: Gentlemen is it your pleasure to adopt this as a whole or by sections? (It was agreed to adopt it by sections).

Dr. Johnson will you read the first section?

Dr. Johnson (Reading)

(1) "That industry include in its preplacement or preemployment examinations audiometric testing to be done as a part of the examination on all individuals who are required to work in a noise hazard area. Also, that audiometric testing should be done at periodic intervals as indicated."

I make that as a motion. (This was seconded by Dr. Cain.)

THE CHAIR: Is there any discussion?

DR. GAINES (Recognized): Does that include lengthy legislation be passed to require that.

DR. JOHNSON: This is the committee's recommendation of the standing committee on Industrial Health.

DR. GAINES: The house just disapproved a similar recommendation from the Committee on Legislation.

THE CHAIR: Is there any further discussion on this motion? This is a committee report, this is from a different committee. Dr. Gaines Committee that he had reference to is the committee on Legislation and Public Relations committee report which they have just adopted in contrary action to the one now recommended.

Are you ready for the question? All in favor of the adoption of the audiometer in industry please say "aye" (There were some "ayes") All opposed say "no". (There were several very loud "noes".)

THE CHAIR: The next item.

DR. CAIN (recognized) Might I ask to clarify the situation, I don't understand why the same recommendation is coming from two different committees, the recommendations on similar things.

THE CHAIR: There was a report referred to two committees from two different sources that the same information came to different committees.

DR. CAIN: Where did the information come from that Dr. Gaines committee reported on?

THE CHAIR: Can you answer that, Dr. Gaines?

DR. GAINES: It came from the Standing Committee on Legislation and Public Relations.

THE CHAIR: And where does yours come from, Dr. Johnson?

DR. JOHNSON: From the Standing Committee Industrial Health: J. L. Hughes, Chairman, W. B. Townsend, Izard Josey, Leslie C. Meyer, G. R. Loeb, C. W. Evatt, J. H. Crooks, K. B. MacInnis, I. G. Linton, W. P. Beckman, P. E. Whitaker and G. W. Hammond.

THE CHAIR: Is it the wish of the House that we go

back to Dr. Gaines' report. I will ask that the section of Dr. Gaines' report concerning that which we just disapproved be read, so that we will know just where we stand. Dr. Gaines will you read that? (Dr. Johnson accepted the interruption)

DR. GAINES: This is the recommendation of the Standing Committee on Legislation and Public Relations (Reading from *The Journal*) Issue, May 1956, Page 185) "The general consensus of opinion was that this resolution demands further study. It was generally felt that we should be ready to advise the legislature or Workmen's Compensation Commission concerning this matter but should not take the lead in promoting legislation at present. We feel that further study is necessary. Respectfully submitted, Frank C. Owens, M. D., Chairman."

THE CHAIR: Dr. Cain, does that answer your question?

DR. CAIN: Yes, sir, I would like to ask Dr. Johnson to re-state his so that I can catch the phrasing of that.

THE CHAIR: Dr. Gaines recommended further study of this situation.

DR. JOHNSON (After reading the recommendation) We are endorsing the recommendation of the committee on Industrial Health where they recommend audiometric testing in preplacement and pre-employment examination. Dr. Hughes appeared before our committee and discussed this 45 minutes or an hour. They did not arrive at this on any rapid decision, and we did not see any reason why a man about to be employed should not be tested for hearing as well as being tested for high blood pressure, eye sight and everything else. There must be some good reason of which we are not aware.

THE CHAIR: Gentlemen, is there any further discussion on this motion? Are you ready for the question?

DR. GAINES: We have already voted on it, Mr. Chairman.

THE CHAIR: Are you satisfied, Dr. Cain?

DR. CAIN: Yes, I am satisfied. I just wanted to know where I stood, I didn't know.

DR. JOHNSON (Continuing recommendations—reading No. (2):) "That when new industry moves into an area, when old industries are being enlarged with new equipment, that the noise hazard problem be considered in the procurement of equipment. Noise hazard factors should be considered in the replacement of old machinery wherever feasible."

Mr. Chairman, I make that in the form of a motion. (This motion received several seconds.)

THE CHAIR: Is there any discussion?

DR. GAINES (recognized) Are we recommending legislation to this effect take place or are we just recommending this to industry?

DR. JOHNSON: In a joint meeting with the legislative committee on November 3, 1955 the question of loss of hearing in industry was discussed and it was the opinion of those present that any legislation along this line would be premature. The second meeting of the committee was held March 6th, 1956, in Charleston with five of the committee being present, and they would like to submit the following recommendations to the South Carolina Medical Association.

DR. GAINES: I would still like to know if we are going to recommend legislation or if it is a recommendation to industry?

(The reading of the recommendation was called for by Dr. Gressette)

(The Recommendation (2) is re-read by Dr. Johnson)

DR. WESTON (Recognized) Mr. Chairman, let's make our recommendation clear and make it to the Industrial Commission, rather than to the legislature.

THE CHAIR: Dr. Weston, to the Industrial Commission?

DR. WESTON: That is right, wouldn't that make it clear?

THE CHAIR: What jurisdiction does the Industrial Commission have to do with new industry?

DR. WESTON: Well, if we recommend it to the Legislature then that means that we will want it passed, doesn't it? What about the State Board of Health?

THE CHAIR: Do you want to make that as an amendment to the motion that is now before the House?

DR. WESTON (Amendment) I make an amendment; to the Public Health, then. (This amendment was seconded by Dr. Prioleau)

THE CHAIR: Is there any discussion on Dr. Weston's Amendment?

DR. WALLACE (Recognized)

The State Board of Health had a Bureau of Industrial Health which we were very proud of which we thought was doing an excellent job. Now, in this economy program a few years back the planning and budget board abolished the Department of Industrial Health. We thought it was shortsighted in view of the fact that South Carolina is every day becoming more highly industrialized. We had a Director of Industrial Health, Dr. Harry Wilson, who had had special training in this line and we thought was doing an excellent job. We had to transfer him from the Department of Industrial Health to the laboratory. Now, we feel and have felt for a long time that to have a little more sentiment behind it and a little more push that we could re-establish the Department of Industrial Health and I think it would also answer every phase of this question that has been brought up. All these new industries have certain regulations that they have to meet; in the quarries and in other industries and plants where they inhale the fumes of foreign bodies. We hope that if you give us good support we might be able to get this department back so that we can re-establish the Industrial Department to the State Board of Health, which is the Bureau of Industrial Health.

THE CHAIR: Is there any further discussion on the amendment? (Dr. Evatt told of an epidemic of hearing loss during the World War in Charleston which cost the people a good many thousand dollars. Finally a fraud was admitted and the epidemic broken up. He urged the passage of the resolution.)

THE CHAIR: We are discussing the amendment. The amendment would be that this resolution be sent to the State Board of Health. Is there any further discussion on the amendment? Are you ready for Dr. Weston's amendment?

(The vote was taken and passed.)

THE CHAIR: We are now voting on the recommendation. Will you re-read that, Dr. Johnson?

(Recommendation (2), Page 1 of the Report of the Reference Committee on Public & Industrial Health, was read again.)

THE CHAIR: Is there any further discussion on this motion? (There was none, the vote was taken, and it was carried.)

THE CHAIR: We are ready for your third recommendation, doctor.

DR. JOHNSON (Reading) "That the South Carolina Medical Association suggest to the South Carolina Health Department the formation of a committee on Industrial Health to serve as a source of information on industrial medical matters for management." Mr. Chairman, I make that in the form of a motion. (This was seconded by Dr. Goldsmith; there was no discussion; the vote was taken and it was carried.)

THE CHAIR: The next, Dr. Johnson.

DR. JOHNSON (Cont. his report)

"(4) That the Medical advisory Committee to the State Industrial Commission serve as a consultative unit on industrial health for management."

I make this in the form of a motion, Mr. President. (This was seconded by Dr. Black; there was no discussion; the vote was taken and it was carried.)

DR. JOHNSON (Continuing)

"(5) That the State Industrial Commission be urged by the House of Delegates, through its secretary to use the Advisory Committee in order that it, the Industrial Commission may render a fairer and more equitable award to injured workers whose cases are presented to it." I make that in the form of a motion, Mr. President. (This motion was seconded by Dr. Crawford; there was no discussion; the vote was taken and it was carried.)

DR. JOHNSON: Mr. President, your Committee recommends the adoption of this section of the report. The Report of the Committee on the Care of the Indigent Patient. (Reading) "For some unexplained reason the report last year was never presented to the House of Delegates. Your reference committee wishes to wholeheartedly endorse the sentiment of this committee when it states that "each township or county should care for its own indigent" "in order to avoid centralization of the care of the indigent in Columbia, increase in taxes by two million dollars to start with the creation of an insatiable colossus." It is recommended that each township and county seek ways and means to care for its own sick indigent and that a copy of the resolution of the Committee on Care of the Indigent be sent to each county delegation of this state. Your reference committee recommends the adoption of this section of its report. (This motion was seconded by Dr. Macdonald; there was no discussion; the vote was taken and it was carried.)

(Continuing report)

"As to the request from the Kershaw County Medical Society concerning a law making it illegal for any child to be deprived of protection against diphtheria, pertussis, and tetanus, your committee was favorable toward the spirit of the resolution. Representatives from the State Health Department are as anxious to stamp out these diseases as anyone is but they feel that such a law is unenforceable. They point with pride to the marked decrease in the incidence of typhoid, as well as diphtheria, pertussis and tetanus. They feel that the advantage of publicity of such a law is more than offset by the disadvantage of having a completely unenforceable law.

Your reference committee therefore disapproves this portion of its report. (This was made in the form of a motion; was seconded by Dr. Wyatt; there was no discussions; the vote was taken and it was carried.)

(Continuing report)

"With respect to the letter from Dr. Beckman, Director of Mental Health, concerning closer supervision of patients through the County Health Departments, your Committee is in full accord. This portion of the Committee's report is approved."

Mr. President, I move its adoption. (This motion was seconded by Dr. Weston; there was no discussion; the vote was taken and it was carried.)

(Continuing report)

"The report of the Committee on Infant Mortality is received as information and the committee is urged to continue and make its findings available to all physicians in South Carolina. This portion of the report is approved."

Mr. President, I recommend its adoption. (This motion was seconded by Dr. Gaines; there was no discussion; the vote was taken and it was carried.)

(Continuing report)

"To quote from the Report of the Committee on Salk Vaccine: 'While confusion, turmoil and misunderstanding existed at the outset, we now find tran-

quility, trust, confidence and harmony with the health officers, druggists, parents, and doctors.' Your Committee wishes to thank the Salk Vaccine Committee for a job well done and recommends its dismissal. This portion of the report is approved." Mr. President, I move the adoption of this recommendation. (This was seconded by Dr. Weston; there was no discussion; the vote was taken and it was carried.)

(Report continued)

"The Cancer Commission stated that its work is progressing satisfactorily and has no suggestions to make. The Commission is to be congratulated on the splendid work in cancer control it is doing throughout the clinics in the state. This portion of the report is approved.

Mr. President, I move its adoption. (This motion was duly seconded, there was no discussion; the vote was taken and it was so ordered.)

(Report continued)

"The Medical Advisory Board to the Crippled Children's Society of South Carolina continued to act in an advisory capacity. Its continuance is recommended. This portion of the report is approved."

Mr. President, I move its adoption. (This motion was seconded by Dr. Wyatt, there was no discussion, the vote was taken and it was carried.)

(Report continued)

"The briefest report is that of the Committee on the Care of the Patient. Dr. Hood is for continuation but no meeting has been held. He desires a new setup but doesn't state what the set-up is. Your reference committee recommends a firecracker or two under this committee and continuation of it under whatever set-up it will best function. This portion of the report is approved." (Laughter)

Mr. President, we recommend its adoption.

THE CHAIR: Continue.

(Report of Dr. G. D. Johnson (Continued):

"The Committee on School Health is to be encouraged to continue its work. Although it is discouraging to send out 37 questionnaires and receive only four replies, your committee hopes that the School Health Committee will not despair. It would be most helpful if the constituent county societies would get to work on this community project—a wonderful opportunity for good public relations—and let the committee on school health know the progress in each county. Your reference committee approves this section of the report concerning the school health." I move its adoption. (This was seconded by Dr. Weston; there was no discussion; the vote was taken and it was carried.)

Mr. President, we recommend the adoption of this report as a whole. One item was disapproved,—with that exception we recommend its adoption.

(This was seconded by Dr. Weston; there was no discussion; the vote was taken and it was so carried.)

DR. JOHNSON: This report is signed by H. B. Morgan, W. T. Barron, George Dean Johnson, Charles N. Wyatt and W. W. Edwards.

Mr. Chairman, as chairman of your committee on Public & Industrial Health I wish to thank all the physicians who have appeared before us to give us the advantage of their thinking. My special thanks go to Drs. H. B. Morgan, W. W. Edwards, Charles N. Wyatt, W. T. Barron, other members of the Committee who like me would have preferred to be in the surf, on the links or in the sack. (Applause)

THE CHAIR: The next Reference Committee report is Amendments to the Constitution and By-Laws, by Dr. J. D. Guess.

DR. J. D. GUESS (Recognized): Mr. President, This is the report on amendments to the Constitution and By-Laws. Since each item in the report has to do with an amendment to the By-Laws—there were no

amendments to the Constitution, the proposed amendments may be passed by this body and become effective after a two-thirds favorable vote. (Reading) "Six proposed amendments to the By-Laws were referred to our committee. The first was a resolution submitted by the Greenville County Medical Society, which proposed (1) the lengthening of terms of office of members of the standing committee on Legislation and Public Relations to five years, (2) the nomination of members of this committee by the Council and their election by the House of Delegates and (3) the staggering of their terms of office, of members of that committee, so that one member would be dropped and a new member added each year.

"The Committee made some minor changes in the resolution as submitted, but without changing its intent."

(The committee recognized the fact that this proposal is rather controversial and it was rather surprised that only one man appeared before the committee and that man was a member of the Greenville County Society, which originated this idea, and of course he came to favor the adoption.)

(Continuing to read)

"The committee submits the following as an amendment to Chapter VIII, Section 5: Strike out the entire section as it now reads and substitute therefor the following:

Section 5. The Committee on Legislation and Public Relations shall consist of five (5) members, who shall be nominated by the Council and elected by the House of Delegates: together with the President, the President-elect, and the Secretary, *ex officio*. Initially, after adoption of this amendment one member shall be elected for a term of one year, one for a term of two years, one for a term of three years, one for a term of four years, and one for a term of five years. Each year the President shall designate the Chairman of the Committee. The Executive Secretary of the Association shall serve as executive secretary of the committee. The committee shall represent the Association in preventing the enactment of legislation which is inimical to the public health, to scientific medicine, or to established standards of medical training or of medical care. The committee shall keep in touch with professional and public opinion and shall make a careful study of such proposals and plans as are advanced which would bear directly or indirectly upon the practice of medicine and upon the public health (i.e., health insurance, hospital insurance, state or federal aid in the care of the indigent, etc.) and shall advise the House of Delegates, the officers of the Association, and the members of the Association concerning these matters. It shall make recommendations to the House of Delegates and to the Council should the occasion arise."

Mr. President: On behalf of the committee, I move the adoption of the Amendment as submitted, but to become effective in 1957. (Dr. Wyatt seconded this)

THE CHAIR: Gentlemen, I think changes to the By-Laws should be undertaken with considerable thought. I am not speaking for or against but I want you to be careful what you do in regard to the change in the By-Laws.

Is there any discussion?

DR. JOE CAIN (Recognized) I believe that if we are to accept this proposal concerning the Legislative Committee that we should consider an amendment to it so that the members would be elected not for five (5) years, but for three (3) years. Five years to me seems to be a very long time for any one man to be on any committee without having an opportunity to be re-elected or not re-elected as the delegates see fit. The councilors are elected for three (3) years, other officers have terms less than three (3) years.

I think three (3) years should be the maximum. I would like to propose an amendment to that so that these men will be elected for three (3) years and that the provision which has to do with the staggering of the members be amended accordingly.

THE CHAIR: Any further discussion?

DR. GOLDSMITH (Recognized) I appeared before the committee yesterday in regard to this amendment and Dr. Cain mentions the fact that it should be reduced from five (5) to three (3) years. I rather differ with him on that fact because it takes a man about four (4) years to learn the ropes up around the State Legislature. If we have this committee of five members, one new man coming on each year, we would have four old men on the committee, all the time, working with Mr. Jack Meadors up on the state level. He would know who they are and members of the senate and house would know the men, and we would get along much better than having an entire new committee each year. I don't think we should adopt the change of making it a three (3) year term instead of five (5) years for that particular reason.

DR. JOE CAIN (Recognized): I would like to speak for my amendment again. I would like to call your attention to the fact that very often a man that you elect to a committee you may find he is not the one you want. If you are stuck with him for five years, you are stuck with him. There is no part in this by-law which allows you to get rid of him. If you are stuck with him three (3) years, you can get rid of him in three (3) years. If you want him to stay up there you can re-elect him. I think the amendment should pass.

DR. GOLDSMITH (Recognized) I think the Council will know pretty well the man who would work and not nominate a man to this committee if they didn't think he would be willing to work for five (5) years.

DR. GRESSETTE (Recognized) I would like to remind the House of Delegates that even though I was lazy and did not appear before the Committee, that this amendment with the five (5) members, I think, is too slow. I will agree with Dr. Goldsmith it is good to have one with experience on the Legislative Committee, and I agree Council and the House of Delegates will be very careful who they select,—but I think if Joe Cain will allow an amendment and say six (6) members, and rotate two (2) each year, would be by far better because in doing that you would have a majority of your standing committee, (I think the idea of a standing committee on it is excellent, I think it stabilizes our job) but I think to change only one (1) member a year for five (5) years is too doggone slow because four men can convert one, but four men would have a difficult time in converting two men, like we will elect to that committee. I would remind you in the S. C. Senate they are elected for four (4) years—in the House for two (2) years. Very often, from my small amount of experience in legislative matters, very often you have personality complexes which it is good to have some rotation on. I think the idea, if Joe Cain will accept an amendment, I would like to propose an amendment to his amendment that we have six (6) members and rotate two (2) each year.

DR. JOE CAIN: I will accept that amendment.

THE CHAIR: Is there a second to Dr. Gressette's amendment to amend Dr. Cain's amendment that we have six (6) members and rotate two (2) each year? (This was seconded by Dr. Morgan.)

THE CHAIR: Is there any discussion on the second amendment?

DR. GAINES (Recognized) In view of the experience we have had in the last two or three years, I think the amendment would be a very wise one. I heartily support it.

THE CHAIR: Are you speaking on the second amend-

ment, Dr. Gaines?

DR. GAINES: I am speaking on both amendments.

DR. BURNSIDE (Recognized)—I would like clarification, did not Dr. Gressette mean his committee to serve three (3) or five (5) years?

THE CHAIR: Three (3) years, six (6) men.

Are you ready for the second amendment? All in favor of Dr. Gressette's amendment to Dr. Cain's amendment with six (6) men to serve three (3) years each, with two (2) rotating each year, signify by saying "aye". (The vote was taken and it was passed.)

THE CHAIR: Now, we are back to the first amendment. The secretary (the stenographer) says the first amendment was made by Dr. Cain but that Dr. Joe Cain accepted the change in his amendment as proposed by Dr. Gressette. Is that in accord with the House of Delegates' idea,—if not, we will go to the main motion as made by Dr. Guess. Will you read the main motion once more, as amended.

DR. GUESS: Mr. President, on behalf of the committee then, I move the adoption of the amendment to the By-Laws as presented and as had been amended by action of the House. This to become effective in 1957.

(Dr. Cain's motion to amend the proposed change in By-Law, Chap. VIII, Sec. 5, as offered by Dr. Guess, and as further amended by Dr. Gressette, with Dr. Cain's consent is as follows):

To amend so that the committee on Legislation and Public Relations shall consist of six (6) members to be elected for three (3) years, with two (2) rotating each year, and that the provision, which has to do with the staggering of members be amended accordingly.

(The vote was taken on Dr. Guess' motion, and it was carried.)

DR. GUESS (Continuing) The second item referred to this Reference Committee was the recommendation by the Council to amend Chapter X, Section 1, which deals with the matter of annual dues so that members joining the Association on or after July 1, in any year, would be required to pay only one-half the annual dues.

(Reading) "The committee submits the following as an amendment to Chapter X, Section 1:

Section 1. The annual dues for members of this Association shall be \$20.00. The dues for members who join the Association on or after July 1 shall be \$10.00 for the remainder of the calendar year. Three dollars of the annual dues and \$1.50 of the dues for a portion of an initial year of six months or less shall be for subscription to the Journal of the Association."

Mr. President, on behalf of the committee I move the adoption of this amendment to the By-Laws. (This motion was seconded by Dr. Weston and Dr. Burnside. There was no discussion; the vote was taken and it was carried.)

DR. GUESS (Cont. his report) "The third and fourth items had to do with the name and the method of selection of the chairman of the Committee on Maternal Welfare. The committee approved the suggested change of name of the standing committee, now called the Committee on Maternal Welfare to the Committee on Maternal Health. It also approved the proposed amendment to

Chapter VIII, Section 8 of the By-Laws, after incorporating the change in name of the committee. Therefore, the proposed amendment, as changed reads as follows:

"CHAPTER VIII, Section 8. The Committee on Maternal Health shall consist of a chairman, who shall be a full time specialist in obstetrics, or in obstetrics and gynecology, and who shall have been nominated by the South Carolina Obstetrical and Gynecological Society; the Director of the Maternal and Child Health Division of the South Carolina State

Board of Health, provided he be a member of the South Carolina Medical Association; and six other members, at least four of whom shall be general practitioners, actively interested in the practice of obstetrics, provided, however, that should notice of the nomination of the chairman not be received by the secretary of the Association before adjournment of the annual meeting, the President shall appoint a chairman without such nomination."

Mr. Chairman, on behalf of the committee, I move the adoption of this amendment.

(This motion was seconded by Dr. Goldsmith; there was no discussion, the vote was taken and it was carried.)

DR. GUESS (Cont. Report of his Committee)—

The fifth and sixth items dealt with changing of the name of the Standing Committee on Infant Mortality, and a change in the method of selecting the members of the committee.

The committee approved the change of name of this committee to The Committee on Infant and Child Health. After incorporating the proposed change of name, it approved the resolution dealing with nominations to membership on the committee.

The proposed amendment reads as follows: (Reading) CHAPTER VIII, Section 9. "The committee on Infant and Child Health shall consist of five members who, after the first year, shall be appointed to serve for a term of two years each. Two members of the committee shall be general practitioners and shall be nominated by the South Carolina Academy of General Practice; one member shall be a specialist in Obstetrics or in Obstetrics and Gynecology, and shall be nominated by the South Carolina Obstetrical Society; two members shall be specialists in Pediatrics and shall be nominated by the South Carolina Pediatric Society; one of the Pediatricians so nominated shall be designated by the Society to be chairman of the committee; provided, however, that should notices of such nominations not be received by the secretary of the Association before adjournment of the annual meeting of the Association, the President shall select the members of the committee without such nomination or nominations."

Mr. Chairman: On behalf of the committee, I move the adoption of this amendment.

(This motion was seconded by Dr. Goldsmith; there was no discussion; the vote was taken, passed and it was so ordered.)

DR. GUESS: Mr. President, I move the adoption of this report as a whole with the exception noted in the first proposal.

(This motion was seconded by Dr. Johnson. There was no discussion; the vote was taken; passed and it was so ordered.)

THE CHAIR: It takes a two-thirds vote for all of these. I will ask that those in favor please rise so that they can be counted. Now, all opposed to these please rise. The Chair rules it has been carried by a majority of two-thirds.

Thank you and your committee, Dr. Guess.

(Dr. Guess' committee consisted of W. W. King, C. R. F. Baker, R. S. Solomon, H. M. Eargle.)

THE CHAIR: We are now ready to hear the report of the Reference Committee on Credentials, Dr. C. W. Evatt, Chairman.

DR. EVATT: Mr. Chairman, I wish to thank my entire committee, especially Dr. Sanders and Dr. Paul Watson for being so constantly on the job. At present we have sixty-five (65) certified delegates that we know of. Now there are still some dozen or so whose seats have not been claimed. If there is anybody here who is willing to certify to this please let us know about it. This is important and we don't want any hard feelings here.

THE CHAIR: Thank you Dr. Evatt.

We are next under the Reference Committee Report—Insurance, Blue Cross and Blue Shield, Dr. J. Howard Stokes, Chairman, Dr. Stokes. (Dr. A. C. Bozard makes the report)

DR. BOZARD: Mr. President, Members of the House of Delegates, this is the report on Insurance, Blue Cross and Blue Shield. Apparently the Insurance Committee has done such a wonderful job that nothing was referred to the Insurance Reference Committee yesterday afternoon.

Dr. Joe Cain is Chairman of the Insurance Committee and as you all know his committee has worked diligently and done an excellent job and has presented to the association for its acceptance a disability policy with the Educators Mutual, which all of you have probably received the brochure and application form. Members of that company will be present in the lobby to answer any questions that any members would like to have answered about this insurance policy.

Our only recommendation is that this Committee be commended for the excellent job that they have done and that an insurance committee be continued. I so move, Mr. Chairman.

(This was seconded by Dr. Johnson; there was no discussion; the vote was taken and it was carried.)

THE CHAIR: Thank you Dr. Bozard.

The next and last reference committee report is that on Miscellaneous Business, Dr. R. L. Crawford, Chairman, Dr. Crawford.

DR. CRAWFORD (Reading Report)

"As Chairman of the Committee on Miscellaneous Business I want to thank all the members present for their work, Dr. John A. Siegling, Dr. K. D. Shealy, and Dr. C. A. Pinner, Jr.

We passed on three Committee Reports, namely, Veteran Medical Care, Committee on Historical Medicine and the Committee on Medical Education.

Veterans Medical Care—We recommend the adoption of this report and that this committee be continued to complete its work. I so move, Mr. Chairman.

(This motion was seconded by Dr. Weston; there was no discussion; the vote was taken and it was passed.) (Report continued)

Historical Medicine—We move the adoption of this report and recommend that \$500.00 be included in this year's budget for this purpose. I so move.

(This motion was seconded by Dr. Cain; there was no discussion; the vote was taken and it was so ordered.)

(Report Continued—Dr. Crawford)

Medical Education—We recommend the adoption of this report and request that the work of this committee be continued and that the State Association give all assistance necessary to raise our quota for South Carolina this year. We believe this matter is of vital importance in forestalling federal intervention in our medical schools, and that unless sufficient funds are raised this year the state Association should assess its members \$10.00 annually to raise the state's quota. I move its adoption, Mr. President.

(This motion was seconded by Dr. Cain and Dr. Goldsmith; there was no discussion, the vote was taken and it was carried.)

(Report continued—Dr. Crawford)

Three resolutions were passed upon. The first was a resolution from Greenville County that "the Association's Award for outstanding and distinguished public service be presented to the Honorable James F. Byrnes in token of our recognition of and appreciation for his interest and official leadership while Governor of the State, in the extension and improvement of the medical care for the people of South Carolina, and especially for the achievement of his administration, in the creation of the South Carolina Mental Health Commission, the extensive expansion of the physical plant and facilities of the State Hospital, and in completion of the program of expansion of the Medical

College of South Carolina."

We approved this resolution and recommend that it be adopted.

THE CHAIR: Is there a second?

DR. BAKER: I would like to second that and ask that we make that unanimous.

(There was no discussion; the vote was taken and it was carried.)

THE CHAIR: It was unanimously carried, Dr. Baker. (Report of Misc. Business Ref. Committee continued—Dr. Crawford)

The second resolution was on the Red Cross Blood Bank. (Reading from resolution)

"Be it therefore resolved that the South Carolina Medical Association endorses this program and recommends its adoption in those localities not now participating in a blood bank program."

Our committee approved this resolution and recommend its adoption. (This motion was seconded by Drs. Weston and Prioleau; there was no discussion, the vote was taken; it was carried.)

(Report continued—By Dr. Crawford) The third is the resolution from Council to the House of Delegates for its information on Medical Education. (Reading from resolution) "Concerning the report just presented by Dr. R. L. Crawford, Chairman of the State A.M.E.F. Committee, the Council approves the proposals made by this Committee and urges wholehearted support and participation by the members of the South Carolina Medical Association.

"Since Medicine is called upon to raise only two million dollars out of ten million, the balance to be raised by contributions from private industry, and since private industry has the feeling that Medicine is falling down on its part of the contribution and, therefore, is reluctant to continue its 80% contribution to this cause, we feel that organized medicine stands, not only to lose this additional eight million dollars, but also to lose the moral support and strength of private industry which has allied itself with us in our past battles for free enterprise, and whose support we feel it is necessary to maintain in the future. "Therefore, Council considers this proposal of such importance that should the voluntary contributions year by year fall below our allotted quota of \$12,000, that next year in order to raise this amount, the dues to the State Association will have to be increased accordingly. Since none of us like to think of an increase in dues it is our earnest plea that we accept our responsibility as individual physicians and make the necessary voluntary contributions."

Mr. Chairman, we approve this resolution and recommend its adoption. I so move.

(This motion was seconded by Dr. Weston; There was no discussion; the vote was taken and it was carried.)

DR. CRAWFORD: We recommend the whole report be adopted and I so move, Mr. Chairman. (This motion was seconded by Dr. Cain; there was no discussion; the vote was taken and it was carried.)

THE CHAIR: Thank you and your committee, Dr. Crawford.

Are there any further reports?

DR. JOE CAIN (Recognized)

This is a further report of Council to the House of Delegates. According to the By-Laws it is proper for Council to make recommendations on the second day of our meeting for action by the House of Delegates, without reference to the Reference Committees. I wish to apologize to you for not reading this yesterday, however, it got lost among other things in the scramble.

This resolution is of sufficient importance for us to ask for some consideration today and it has to do with Civil Defense. As you know last year the House of Delegates asked Council to set up a Committee on

Civil Defense and study the problem.

The Committee on Civil Defense was authorized at the meeting of the South Carolina Medical Association in Charleston in 1955. The resolution calling for such a committee was set forth by council and passed by the House of Delegates. It read as follows:

"BE IT RESOLVED that the South Carolina Medical Association initiate and promote a Civil Defense Plan in each community and that it request the South Carolina Hospital Association through its county chapters or local hospital representatives to expand the hospital facilities of each community to tie in with these plans, and

BE IT FURTHER RESOLVED, that Council be given authority to draw up plans for medical care and civil defense and to furnish leadership for placing such plans into effect as soon as possible.

The first meeting of Council, held after the state meeting, was held in November. At that time we appointed a Committee, according to your instructions. Dr. Charles Wyatt of Greenville was Chairman and serving with him on this Committee was Dr. Bachman Smith and Dr. Lesesne Smith. This committee has made a thorough study of the situation during the year and reported to council Monday afternoon. They have a very detailed and comprehensive report. They found many things that, in their opinion, were responsible for the fact that Civil Defense in South Carolina was completely bogged down and they made certain recommendations to Council which were approved by Council and which are to be presented to you this morning, to try to remedy this situation. Many of these recommendations will require legislative changes, changes in the present Civil Defense Act to allow different personnel to be appointed and more appropriations for certain things. And, we are asking, if you accept these proposals, you will also authorize your Legislative Committee to take whatever action is necessary to see that these changes are made when the General Assembly meets this year. The first recommendation is that:

"A deputy director for medical services in the State, on a state level." The medical services are under another director and from the study of this committee we found this was one of the main reasons this program was bogging down.

Mr. Chairman, I have nine recommendations. According to the rules we will take them up one at a time. I move the adoption of the first recommendation, which is that a deputy director for medical services be appointed in the State of South Carolina. That is a legislative change, by the State of South Carolina, and it will be correlated in the last recommendation that asks that any of these recommendations that need Legislative action be referred to our Legislative Committee for their support and appropriate action.

(Dr. Cain's motion to have the first recommendation adopted was seconded by Dr. Guess; there was no discussion; the vote was taken and it was carried.)

Dr. Cain: The second recommendation is the "Organization of Medical Civil Defense on a city and county level."

I move that be adopted.

(This was seconded by Dr. Wallace; there was no discussion; the vote was taken; it was carried.)

Dr. Cain: (3) We recommend "Organization of mobile teams based on personnel required for operation of 200-bed mobile hospital, in larger medical centers, over the State." I move its adoption. (This was seconded by Dr. Guess; there was no discussion; the vote was taken; it was carried.)

(4) We recommend "Requisition of at least three 200-bed mobile hospitals for this State for training purposes and use in time of emergency." I move the adoption. (This motion was seconded by Dr. Gibbs;

there was no discussion; the vote was taken and carried.)

(5) It is recommended "Aid in securing more appropriation from State Legislature for Civil Defense." We recommend that and move its adoption. (This motion was seconded by Dr. Guess; there was no discussion; the vote was taken; it was carried.)

(6) We recommend "Continuing education for medical and lay personnel on Civil Defense." I move its adoption. (This motion was seconded by Dr. Johnson and Dr. Guess; there was no discussion; the vote was taken and it was carried.)

(7) We recommend that we continue "Constant vigilance and continuing training of all medical personnel." I move its adoption. (This motion was seconded by Dr. Weston and others. There was no discussion; the vote was taken and it was carried.)

(8) Since this committee of Council has done such a thorough job on this problem, we recommend "The Committee of Council be retained to continue its work in this regard."

I make that motion. (This motion was seconded by Dr. Guess; there was no discussion; the vote was taken and it was carried.)

(9) We recommend "Any of these recommendations requiring legislative changes be referred to our Legislative Committee and that they be urged to see that these proposals are passed and work towards that end this year." I move the adoption of that. (This motion was seconded by Dr. Guess, there was no discussion; the vote was taken and it was carried.)

Mr. President, I move the adoption of this report as a whole. (This was seconded by Dr. Guess and Dr. Johnson; there was no discussion; the vote was taken and the report in its entirety was adopted.)

Dr. Cain: A report from Council will be given by Dr. Weston. He has a report which passed Council this morning.

THE CHAIR: Dr. Weston, you have the floor.

DR. WILLIAM WESTON, JR.: Mr. President, this is a resolution which was passed by Council, there was a request this morning from one of our members and it came through the president of the Dental Society. This resolution is "regarding fluoridation of the water supply" **RESOLVED**, That the South Carolina Medical Association approve in principle the fluoridation of the water supply of the cities and towns in South Carolina."

Mr. President, I move you its adoption. (This motion was seconded.)

THE CHAIR: Is there any discussion?

DR. DURST: Recognized: I am very much in favor of fluoridation but there are certain areas in this state where it is not needed. For instance in my area, Sullivan's Island, it is perfect, it is naturally fluorinated and I would say the resolution should be amended to say "where fluoridation is apparently needed."

THE CHAIR: Dr. Weston, was your resolution for "principle" only? In principle, the adoption of it?

DR. WESTON: It was only "in principle", yes.

THE CHAIR: Is that acceptable to you, doctor.

DR. DURST: Yes.

THE CHAIR: Is there any further discussion?

DR. GOLDSMITH (Recognized) I think we should go very slow when we adopt the resolution favoring fluoridation of city water supplies. If I should ask every one of you here if you are opposed to socialized medicine, I think 95% of you would stand up and say you are opposed to socialized medicine. Tax supported compulsory fluoridation of a city water supply is mass medication and that is socialized medicine. Let's be consistent about it, if we are going to vote in favor of fluoridation of city water supplies let's just throw the bar down and say we are in favor of socialized medicine, in every phase.

If a person wants to put sodium fluoride in the water

for his own child, that is their own business, they can buy the sodium fluoride on a prescription, a very small amount, and it will cost very little for a child.

If we go on record as favoring in principle fluoridation of city water supplies they will use that all over the State and over the United States, where cities are trying to get it in force. Now, back of this thing is the fact that the Department of Health, Education and Welfare are sponsoring this all over the country. It is coming from the top down, not from the grass-roots, as it should be.

I am not opposed to a person taking fluorine, if he wants to do it, that is perfectly all right. But it has not been a long enough scientific evaluation, either pro or con, for us to say it does or does not help prevent caries in children's teeth.

Now, what it does to the bony structure, or other parts of the body has never been worked out. It would take approximately twenty-five (25) years evaluation of a large number of people, one section who take fluorinated water and in another section that do not. It will take a staff of scientists and medical men to evaluate it. So let's go slow on adopting it, even in principle. Thank you.

THE CHAIR: Is there any further discussion?

DR. PARKER: (Recognized) As Dr. Goldsmith said, a study of this matter has not been completed. It will take a long time. There has been sufficient study to point out that the concentrate of fluoride in drinking water, as it is advocated, will produce changes in teeth of a definite number of individuals who drink it. In the past these changes were referred to as "chalky" and they were described as insignificant or mild, it made no particular difference. More recently this terminology has been changed to "pearly" because that has more appeal.

I would like to point out the thought that people say what is the difference in fluoridation of water and insisting on vaccination. Well, principally, dental decay is not a medical emergency of a contagious nature; and that in a fluoridated water supply people are required to drink the water because they can not get water reasonably from anywhere else.

We are certain that a certain number of them are going to be damaged. Now, we are not at this time arguing the extent of the damage but by the same token we are asking them to be damaged for benefits to others, the extent of which benefits we are not prepared to exactly qualify either, at this time.

There is always a temptation for anyone in power to say, "I want you to do this, I know it is good for you and I want you to get it. It is a very dangerous state of mind. And I would like to urge, also, that you consider very carefully before adopting this voluntary approach.

THE CHAIR: Is there any further discussion?

DR. W. R. WALLACE (Recognized) The best statistics that have come in regards to fluoridation are those towns that have sufficient fluorides in the water supply. And a very careful examination of the teeth of children in those particular areas shows that they are much better than in the other areas where the fluoride content in the water is low.

We feel that this is a public health measure and through our research all the facts that have come to our attention have been favorable.

Now we think that if the children who live in a town where there is a high fluoride content, if they have better teeth, we feel those who do not have sufficient fluoride in the water should receive it. We are not trying to enforce anything but we feel after a study of seven (7) years we decided to recommend to the municipalities that they add fluoride to the water in order to bring it up to a certain standard and we are rather encouraged and we think it is a splendid thing to do. I hope a lot more cities will—we have quite a

number of cities in the State that already have it and they have no complaint, and we hope many other cities will do likewise.

THE CHAIR: Thank you doctor, is there any further discussion?

DR. BROCKMAN: (Recognized) Mr. President, fellow members, we have had fluorinated water in Greenville, all of us have had an opportunity to try it out. It divided our city almost equally, the people are terribly unhappy about it and they voted it out several months ago and now the thing is up again, we are going to have to vote on it again. I think it is calculated to disorganize a well-run city. My advice is, why rile the people up? As some one pointed out, we are forcing some people to drink the fluoridated water. They claim they are afraid of it; some of them claim it affects their stomachs. They like to have worn me out, I couldn't sleep at night, these dissatisfied people, and I want to back up Tom Goldsmith and Tom Parker.

Why should we, not knowing, as has been pointed out, we don't know whether it is good or not good. I was talking to one of our interns last year, from one of our South Carolina towns, I said, "You boys help us settle this thing, we are all unhappy about it in Greenville. He said that he had teeth he called "mottled" teeth, he said he would gladly trade these birds off for some fillings.

There are two sides to this. Theoretically we all voted for it; we accepted the recommendations of the dentists and the committee that studied it; we tried; and now it is up before our people again. I say let's go slow about it.

THE CHAIR: Are you ready for the question? All in favor of the principle of approving fluoridation of water supplies, please say "aye". Those opposed "no". (There were about equal voting by sound) Those in favor, please rise. Now, those opposed, please rise. Thank you. It appears to the Chair the "aves" have it, and it is carried.

THE CHAIR: At this time I will turn the Chair over to our Vice-President, Dr. W. Wyman King.

DR. KING TAKES THE CHAIR:

For several years the association has cooperated with the American Association of Physicians and Surgeons in sponsoring an Essay Contest. Dr. Thomas Parker, of Greenville, has been Chairman of the Essay Committee and is here today and I believe he has the winner of the contest with him. I would like to ask Dr. Parker to take charge at this time, Dr. Parker.

DR. PARKER: We have with us today a student who has shown the desire to compete, the urge to excel and who will keep the vision of reward for achievement as a beacon.

(Miss Judith Westmorland, student of Easley High School was requested to come forward and read her essay. Her mother was requested to stand and there was applause, for mother and daughter. The Essay, "The Advantages of Private Medical Care" was beautifully read by Miss Westmorland.

DR. PARKER: Judith, on behalf of the South Carolina Medical Association I would like to present to you this check as a prize, also this Certificate of Meritorious Achievement from the Association of American Physicians and Surgeons. (Miss Westmorland thanked Dr. Parker and the Association) Applause.

DR. ROBERT WILSON: The contest this year was participated in by eighteen counties. We hope next year to have more.

THE CHAIR: Thank you, Miss Westmorland, I would like to add my congratulations, and to thank Dr. Parker for a job well done. At this time I will turn the Chair back to our President.

DR. MAYER (Resuming The Chair) Thank you Dr. King.

(A few minutes recess was declared before going into election of officers.)

THE CHAIR: Called the House to order. The report of the Credentials Committee was given by Dr. R. L. Sanders, as follows: Sixty-nine (69) registered delegates; twenty (20) past-presidents and other officials who are entitled to vote, making a total of eighty-nine (89).

11:30 A. M.—ANNUAL ELECTIONS—

THE CHAIR: We will now receive nominations for president-elect.

DR. THOMAS A. PITTS (Recognized):

Mr. President, Members of the House of Delegates, on this my thirty-sixth consecutive year as a member of the House of Delegates, which I hope is some kind of a record,—but that is not why I am here—I am here to present the person for your consideration and for your election as president-elect of this organization. Most of you know that I speak of Lesesne Smith of Spartanburg. He is a down-to-the-earth South Carolinian, who has been raised in a atmosphere of medicine, medical ethics, and to my mind one, if not the best person in this organization to head this organization in time of trial and tribulation, indietments from all angles over a very, very choppy sea, that we wish our ship of state to go safely over. Dr. Smith has had experience, experience as a councilor which gives him an intimate knowledge of the working of this organization. He has had, so I am told, tricky and troublesome ethical problems flopped in his lap. He has handled them to the satisfaction or near satisfaction of everyone concerned with dispatch and dignity. Dr. Smith, to me, has many, many very, very fine traits, not the least of which is his moral support to our State Medical College which is dear to the hearts of most of us in the hall, following in the footsteps of his illustrious father, who had the honor of being the president of this organization, and the father of the Alumni Association move, which has finally taken form in the building of the Alumni House in Charleston on the medical college properties which the Alumni Association donated to the college—Dr. Smith has had experience in teaching, he has furthered the Seminar that was established by his father, and has widened the scope of this proceeding.

This man will do honor to the office, he will discharge his duties with dispatch and faithfulness, so it is with deep sense of personal pleasure that I present to you in nomination Dr. Lesesne Smith of Spartanburg as the president-elect of this organization. (Applause)

THE CHAIR: Is there a second.

DR. W. THOMAS BROCKMAN (Recognized)

I would like the honor and privilege of seconding Dr. Smith's nomination. He is a neighbor of ours, his county and his district have selected him as someone they would like to have presented to this group. We all know him. There are not too many things we can say that would add anything to his talents. We know he is a fine, outstanding doctor. Dr. Pitts referred to this seminar, he has broadened it, made it a big, fine thing for all of us who want to go up and study a little and freshen up. It gives me lots of pleasure to second Dr. Smith's nomination for president-elect.

DR. DUNCAN C. ALFORD (Recognized):

Mr. President and House of Delegates, Dr. Lesesne Smith finished the Citadel in 1927; Medical School in 1931; he interned in DuVall County Hospital in Jacksonville, one year; two years in Cincinnati in training for pediatrics, incidentally while he was in Cincinnati he obtained his Master's Degree. He located in Spartanburg in 1934 and since that time he has given a lot of his time to our hospital and County Medical Society. He has been Chairman of the staff of the hospital and also been president of the County Medical Society, and also Tri-County So-

ciety. Someone mentioned his experience in teaching. A little added light to that—he taught his wife in Sunday School, where he met her. When we had our primary to select our candidate for this office in October he was unanimous and while he is our choice we hope he will be your choice, too. (Applause)

DR. JOSEPH P. CAIN (Recognized):

Gentlemen, as Chairman of Council I would like to take this opportunity of commending Dr. Smith for his work on the council during the last nine years. Only six of those years has it been my privilege to work with him, however, I can assure you that his faithfulness as a councilman has contributed very materially to the success of our association during that time. I heartily appreciate this opportunity of seconding his nomination for president-elect. (Applause)

THE CHAIR: Are there any further seconds?

Are there any further nominations for president-elect?

DR. CHARLES N. WYATT (Recognized):

Mr. President, I move the nominations be closed and that Dr. Smith be elected by acclamation. (This motion was seconded many times over the floor of the convention; the motion was voted upon and unanimously passed and the Secretary was requested to cast the unanimous vote.)

DR. ROBERT WILSON (The Secretary) I cast it with great pleasure.

THE CHAIR: It gives me real pleasure to announce Dr. Lesesne Smith's election as president-elect and I would like Dr. George Dean Johnson and Dr. Duncan Alford to escort the president-elect to the rostrum. (This was done and Dr. Smith was presented to the House of Delegates by The Chair as the House of Delegates rose in a body, while applauding)

DR. LESENE SMITH: Gentlemen, I want to thank you so much for this honor. I know that there are so many other people who so richly deserve this honor that I do want to thank you, beginning with my County Medical Society and the members and my friends, that thought I might make a good president, I hope I will, for doing so much in my behalf. I have been hearing here and there about things they have done for me and I certainly do appreciate the honor, not only for what they have done but the rest of you. It is an honor to have this position, for I feel I follow so many men who have done so much for medicine. Having had some experience with council I know the many vicissitudes in operating the organization and I want to pledge myself to do the very best I can during the time that I hold office. I thank you so much. (Applause)

THE CHAIR: I want to add my congratulations and congratulate the association on its high choice. My best wishes, Dr. Smith.

DR. SMITH: Thank you so much.

THE CHAIR: The next, under head of nominations is for a Vice-President.

DR. JAMES H. GRESSETTE (Orangeburg) Recognized:

I would like at this time, Mr. President, since we have a president-elect in the upper part of the state to place in nomination one of my lower countrymen to fill this distinguished office, that would be Richard Johnston of St. George.

(This nomination was seconded by Dr. Lawrence P. Thackston, Dr. Thomas A. Pitts, and Dr. William Weston, Jr.)

DR. DIBBLE (E. Marvin) was recognized and moved that the nominations be closed and that Dr. Johnston be elected by acclamation. This motion was seconded by Dr. Thomas R. Gaines; the vote was taken and unanimously carried.

THE CHAIR: Dr. Richard Johnston of St. George has been elected Vice-President of the association.

Our congratulations, Dr. Johnston. The secretary will cast the ballot. (This was done.)

The next order of business is the nomination of a secretary.

DR. BACHMAN S. SMITH, JR. (Recognized): Mr. President, I nominate Dr. Robert Wilson to succeed himself. (This was seconded by Dr. Wyatt.)

THE CHAIR: Are there any further nominations for Secretary? (Motion was made from the floor that nominations be closed and the Secretary cast a unanimous ballot to succeed himself. This motion was seconded many times, the vote taken carried and it was so ordered, and the ballot was cast by The Chair.) Congratulations, Bob, maybe you would like to say a word? (Dr. Wilson indicated in the negative.)

Next the Chair will entertain nominations for treasurer, The nomination for treasurer comes from Council.

DR. ROBERT WILSON (Recognized): Chairman of Council asked me to bring the nomination of Dr. J. Howard Stokes, as treasurer to succeed himself. (This nomination was seconded; motion was made and seconded that the secretary cast a unanimous ballot in favor of Dr. Stokes; the vote was taken, passed; and it was so ordered, and the ballot was cast.)

THE CHAIR: Next, under the head of Delegates to the A. M. A., the term of Dr. George Dean Johnson expires, Dec. 31, 1956. Are there any nominations for a delegate to A. M. A.?

DR. J. DECHERD GUESS (Recognized): It gives me great pleasure to nominate Dr. Johnson to succeed himself. (This motion was seconded by Dr. Thomas G. Goldsmith and Dr. Robert Wilson; motion was made that the nominations be closed and that the secretary cast a unanimous ballot for Dr. Johnson; this was seconded; voted on and unanimously passed; and it was so ordered.)

THE CHAIR: Next, under head of Councilors—the Councilors whose three (3) year terms expire are:

Third District—Hiram B. Morgan

Sixth District—Joseph P. Cain

Ninth District—Lesesne Smith

We will now receive nominations for the Third District.

DR. S. E. MILLER, Georgetown (Recognized): I would like to nominate Dr. Morgan to succeed himself. (This nomination was seconded by Dr. Gressette; motion was made that the nominations be closed; this was seconded and motion made that the secretary cast a unanimous ballot for Dr. Morgan; the vote was taken and passed and the secretary cast the ballot.)

THE CHAIR: We will now receive nominations for the Sixth District.

DR. SWIFT C. BLACK, Dillon (Recognized): I would like to nominate Dr. Joe Cain to succeed himself; This was seconded by Dr. Lee; motion was made that nominations be closed and that the secretary cast a unanimous ballot for Dr. Cain; this was seconded, the vote taken and it was so ordered, the secretary casting the ballot.)

THE CHAIR: Dr. Joe Cain has it, congratulations.

THE CHAIR: We will now receive nominations for the Ninth District. Dr. Lesesne Smith has been serving from this district, and he has been elected President-Elect.

(Nomination was made from the floor that Dr. John M. Fleming of Spartanburg be elected as Councilor from the Ninth District. This was seconded.)

THE CHAIR: Are there any further nominations?

DR. GOLDSMITH (Recognized): Mr. President, I would like to present the name of Dr. William T. Hendrix, of Spartanburg. (This was seconded by Dr. Hall.)

Motion was made by Dr. Wyatt that the nominations be closed, this was seconded by Dr. Pitts; the vote was taken and passed.

THE CHAIR: I will ask you to prepare your ballots for Dr. Fleming and Dr. Hendrix.

At this time the Chair will recognize Dr. Wyatt.

DR. CHARLES N. WYATT: Mr. Chairman, Members of the House of Delegates when the report on the delegates was announced a while ago there were so many voting, and so many ex-presidents, one thing hit me between the eyes that was missing, this is Dr. Weston. This is the first time I can remember in my experience of some twenty odd years that I haven't seen Dr. William Weston, Sr. sitting over here directing traffic. I would like to make a motion that the secretary be instructed to send a message to Dr. William Weston, Sr. telling him how much he has been missed at this House of Delegates, and I so move. (This motion received many seconds over the floor of the house.)

THE CHAIR: I am sure that is the unanimous feeling of this body and all in favor please rise. (The Convention rose)

DR. THOMAS BROCKMAN (Recognized): Mr. President, we are in the habit of having alternate delegates, and I feel we have always had an elected alternate delegate to A. M. A. I would like to nominate Dr. Charles Wyatt to succeed himself.

DR. ROBERT WILSON (Secretary): I am under the impression we have two (2) alternates elected for a one-year term. On the other hand I have some communication from Dr. Lull, the Secretary of the A. M. A., who had Dr. Wyatt and myself down as elected for two-year terms. So I really don't know. I think it is for a one-year term.

DR. BROCKMAN: I remember Dr. Wyatt was made an alternate at the same time Dr. George Dean Johnson was made an alternate—that must have been a two-year term.

THE CHAIR: I will put that before the House at the end of the schedule of elections and we will attend to it at that time.

We will have the report of the tellers on the election of Councilor for the Ninth District.

DR. ROBERT WILSON (Announces) Seventy-Five (75) votes were cast, Dr. Fleming received forty-one (41) and Dr. Hendrix thirty-four (34)—Dr. John M. Fleming is elected.

THE CHAIR: The next order of business is the election of the Members of the Mediation Committee—three-year terms.

The term of Dr. R. Brooks Scurry expires, Third District.

The term of Dr. Walter R. Mead expires, Sixth District.

The term of Dr. James H. Sanders expires, Ninth District.

Nominations are made for the vacancies according to the Constitution, which provides there shall be two nominees from each district.

DR. ROBERT WILSON (Secretary): Council presents the names of all nominees on the Mediation Committee—They are as follows:

Third District: Dr. R. B. Scurry, Dr. Martin Teague.

Sixth District: Dr. Walter R. Mead, Dr. Samuel O. Cantey

Ninth District: Dr. James H. Sanders, Dr. Harold Hope.

(Results of balloting)

DR. ROBERT WILSON (Secretary):

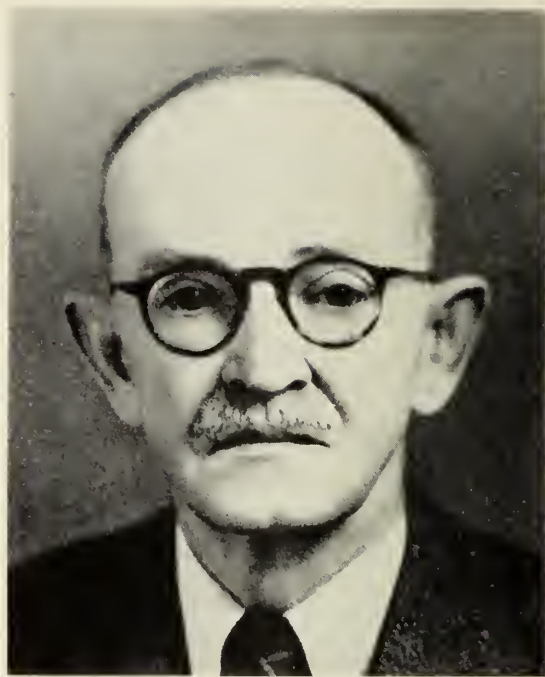
Third District—Dr. Martin Teague

Sixth District—Dr. Walter R. Mead

Ninth District—Dr. Harold Hope

THE CHAIR: The Chair recognizes Dr. Dibble.

DR. E. MARVIN DIBBLE: Mr. President, members of the society, it is rather unusual for me to get up before you and try to make a speech. I am not going to say but a few words but I wish to thank the association for the confidence they have shown in me in



DR. DIBBLE

re-electing me as a member of the Board of Medical Examiners for eight successive terms. This will be the ninth and I will ask my friends not to nominate me this time because I am getting old, my sight has failed a lot and my general health is poor and I don't feel I should serve another term. It has been a wonderful experience being a member of your Board of Examiners and it has been a privilege knowing and assigning so many of you men your State License, and it has been a wonderful experience. Now, I am to say goodbye.

Before I go I want to nominate my friend Harold S. Gilmore of Nichols to succeed me, he is a member of the Sixth District.

THE CHAIR: Dr. Dibble, it is with regret that we hear what you have said at this time I would like to call on Dr. George Wilkinson, who has asked me for the floor.

DR. GEORGE WILKINSON: I rise to call attention of the Society to the many many years of service that Dr. Dibble has rendered the society through all the war years when the Board was under great pressure for taking into the association inferior doctors of one sort and another who had come into the State. Dr. Dibble has been a mountain of strength, unflinching, a diligent hard worker, working perhaps behind the scenes, away from the limelight of publicity. We through his leadership have been able to keep our society and our state and the doctors in this state lined up with our usual principles. We have not had to take in people that we did not feel would fit into the picture in South Carolina. Today we have a rather uniform group of people. The smoothness with which this society works at this meeting is largely the selection of the Board of the type of people we want to have practice in South Carolina. However, actually it is more a screening board than it is an examining board but that one feature of the board is much the important work of the board.

Dr. Dibble has been very faithful in his attendance. He has come when he was sick, he has been discharging his duty as a man, and always fair and always honorable and I rise to call the attention of

the society and ask for a vote of thanks to Dr. Dibble for his many many years of valuable service.  
(The House of Delegates rise)

THE CHAIR: Thank you, Dr. Wilkinson. Dr. Dibble I am sure the House of Delegates meant every word that was said and we thank you very much.

DR. DIBBLE: I thank you.

THE CHAIR: We are under the head of Election of members of State Board of Medical Examiners—4-year terms, The term of Dr. E. Marvin Dibble expires—the sixth district; and the term of Dr. Harold E. Jervev, Jr., member-at-large, expires. We will receive nominations.

DR. E. MARVIN DIBBLE (Recognized) I nominate Dr. Harold S. Gilmore of Nichols to succeed me. He has done a wonderful work for the association and he has wonderful ability and everything he needs.

Dr. Joe Cain seconded this nomination.

(A motion was made that the nominations be closed and that the association cast a unanimous ballot for Dr. Gilmore; this was seconded, passed and it was so ordered.)

THE CHAIR: I see Dr. Wilson has cast the ballot. We are delighted that Dr. Gilmore is elected.

The chair will entertain nominations for Member-at-Large.

(Motion was made from the floor that Dr. Harold E. Jervev, Jr., be elected to succeed himself; this was seconded by several from the floor; Dr. Cheatham moved the nominations be closed and that the secretary cast a unanimous ballot for Dr. Jervev; this was seconded; voted on and passed; it was so ordered and the ballot was cast.)

THE CHAIR: We are ready for nominations for members of the Executive Committee of the State Board of Health. They are by the Constitution of the State of South Carolina elected for 7-year terms. We nominate them to the Governor for appointment. The terms have all expired of the present board consisting of:

Dr. W. R. Barron

Dr. L. D. Boone

Dr. E. W. Camp, Jr.

Dr. Richard W. Hanckel

Dr. W. R. Mead

Dr. Keitt H. Smith

Dr. W. R. Wallace

We will receive nominations for seven (7) members. Before I open the nominations I will read a letter dated May 11, 1956 from Dr. L. D. Boone, addressed to me.

"Dear Dr. Mayer: I appreciate the confidence the association has shown in me by keeping me on the Board of Health for so long a time. Due to my length of service I feel that the Medical Association would probably prefer to place a younger man in my place. Therefore, I request that my name not be presented to the House of Delegates for re-election.

Yours very truly, (Signed) L. D. Boone, M. D."

DR. HALL: (Recognized) Mr. President, I have no nominations. I would like to pass this on to the association. In a conference I had with Dr. W. R. Barron he informed me due to his physical condition he would no longer be able to carry on in this capacity with the State Board of Health.

THE CHAIR: I am sure the House is sorry to learn the feeling of these two men who have done such splendid work and I am sure the House learns with regret that they can not be up for re-election.

The Chair will now entertain nominations for the Executive Committee for the State Board of Health.

(Nomination from the floor); I nominate Dr. W. R. Wallace to succeed himself. (There were seconds)

THE CHAIR: Dr. Wallace has been nominated, seconded by Dr. Crawford and Dr. McDonald. Are there further nominations?

DR. WILLIAM WESTON (Recognized) I would

like to nominate a man to succeed Dr. Barron, who would not allow his name to be presented before this association because he feels like he should retire. This man is Dr. Frank C. Owens, who has been an active member of the medical profession since 1923. He graduated at the University of South Carolina and the Medical College at Charleston and he is not only interested in industrial medicine but he is a sportsman, as well, and he takes care of the game and the fish and I think he will have the solution for pollution. (Laughter and applause) This nomination was seconded by Dr. Guess, and several others.

DR. GAINES (Recognized), Mr. Chairman, I should like to place in nomination to succeed himself Dr. E. W. Camp, Jr. This nomination received several seconds.)

(Nomination from the floor)—I would like to nominate Dr. O. Z. Culler of Orangeburg. (This nomination was seconded by Dr. Goldsmith.)

DR. BLACK (Recognized): I would like to place the name of Dr. Walter Mead of Florence in nomination to succeed himself. Dr. Mead has served three terms on this committee and is quite familiar with its workings. (This nomination was seconded by two or three from the floor.)

DR. HAROLD PETTIT (Recognized): I would like to nominate Dr. Richard Hanckel to succeed himself. (This nomination was seconded from the floor.)

Nomination from the floor:—I would like to place in nomination the name of Dr. Keitt Smith to succeed himself. (This nomination received a second from Dr. Thackston and others.)

Nomination from the floor—I would like to nominate Dr. Wyman W. King to succeed Dr. L. D. Boone. (This nomination was seconded by Dr. Sanders.)

THE CHAIR: Are there any further nominations?

DR. WARING (Recognized) I am asking for information, I would like to ask whether these elections are for 7-year terms or are they staggered?

THE CHAIR: They are 7-year terms by the State Constitution of South Carolina, we nominate them for 7-years to the Governor. These are tantamount of election. Are there any further nominations? If not will you prepare your ballot then for

Dr. W. R. Wallace

Dr. Walter R. Mead

Dr. Frank Owens

Dr. Richard W. Hanckel

Dr. E. W. Camp, Jr.

Dr. Keitt H. Smith

Dr. O. Z. Culler

Dr. Wyman W. King

(The names were written at the request of The Chair on the blackboard.)

Vote for seven (7) on one piece of paper.

Delegate—Mr. President, aren't they to be elected by district, one from each district?

THE CHAIR: The Chair will entertain any authoritative information on that. My information was it was "at large", and I think by custom it has been. If the Chair is in error I will be glad to stand corrected.

DR. W. R. WALLACE (Recognized): The Attorney General has nothing in the law which says they shall be by districts, but by common consent it has always been by the congressional districts.

THE CHAIR: The Chair rules therefore, if there are no objections that they will be elected as you wish, by common consent and by precedent, without regard to districts. (Ballots are prepared)

DR. LESESNE SMITH (Recognized)—Mr. Chairman I move that we communicate with Dr. Boone and Dr. Barron and commend them on the work they have done for medicine in this State over these many years. Dr. Boone was on the State Board of Health for twenty-eight years. I think we should communicate with them and I so move we congratulate them and thank them for what they have done for this organization. (This motion received many seconds)

THE CHAIR: You have heard the motion of Dr. Lesesne Smith which has been seconded, is the House

ready to entertain this motion. (The vote was taken and it was carried.)

THE CHAIR: I will remind the House that the election of members of the Executive Committee of the State Board of Health is by a majority and there have been eight nominated. If there is no majority, according to the Constitution the name receiving the lowest number will be automatically dropped, therefore when we vote the second time, since there are only seven named it would automatically work out as I see it; there would only be seven, to save a second balloting I think we could do it without balloting the next time, but I wanted to acquaint you with it, so you could think it over.

DR. WESTON (Recognized): Members of the House of Delegates, and guests, I just want to remind you please not to forget to write each one of our senators, the ones elected and the one nominated to succeed Strom Thurmond, regardless of what you think of them, be sure to write them in regard to HJR 7225 and what our objections to the bill are.

REPORT OF TELLERS—

THE CHAIR: I will ask the secretary to read the results of the balloting.

DR. ROBERT WILSON (Secretary)—The elections to the State Board of Health were:

Dr. Wallace	Dr. Owens
Dr. Smith	Dr. King
Dr. Mead	Dr. Hanckel
Dr. Camp	

THE CHAIR: Gentlemen, as you know you were voting for seven. There have been eight proposed, the Constitution says that the member receiving the lowest number will be dropped. There are now seven (7) remaining nominees to fill the seven (7) places. The Chair will entertain a motion for the secretary to cast a unanimous ballot for the remaining seven. (This motion was made and seconded, the vote was taken passed and the ballot was so cast.)

DR. W. R. WALLACE (Recognized) Let me say one word in regard to the two men whose term expires. A resolution has already been made but I want to add my appreciation for the amount of service those two men have done. It has been very outstanding. I would also like to thank the association for electing me to another term.

THE CHAIR: The Chair wants to be sure that the House knows exactly who was elected. Dr. Wallace, Dr. Owens, Dr. Camp, Dr. Mead, Dr. Hanckel, Dr. Keitt Smith and Dr. Wyman King are declared elected.

We are now under the head of Members of the Hospital Advisory Council to the State Board of Health, this is for a term of four years. The Term of Dr. B. J. Workman expires and the term of Dr. Roderick Macdonald expires. Do I hear nominations for the term of Dr. B. J. Workman?

Nomination from the floor—I nominate Dr. B. J. Workman to succeed himself. This was seconded by Dr. Folk and Dr. Sanders. (Motion was made that the nominations be closed and that a unanimous ballot be cast for Dr. Workman. This was seconded, the vote was taken, passed and it was cast.)

THE CHAIR: Dr. Workman is re-elected to succeed himself. We will receive nominations for the term of Dr. Roderick Macdonald.

Nomination from the floor—I nominate Dr. Macdonald to succeed himself. This nomination was seconded; a motion was made and seconded that the nominations be closed and that the secretary cast a unanimous ballot for Dr. Macdonald. The vote was taken, passed and the secretary cast the ballot.

THE CHAIR: Dr. Roderick Macdonald succeeds himself.

(Alternate to A.M.A.) We will now return to the election of alternate delegate to the A.M.A. This alternate delegate will be for Dr. George Dean Johnson. The Chair will recognize Dr. Brockman.

DR. BROCKMAN: I would like to nominate Dr. Charles Wyatt to succeed himself as alternate delegate to the A.M.A. This nomination was seconded by Dr. Goldsmith and others; a motion was made and seconded that the nominations be closed and that the secretary cast a unanimous ballot for the nominee; the vote was taken, passed, and it was cast.

THE CHAIR: Dr. Wyatt has been elected as alternate delegate to A.M.A. for Dr. Johnson, for two (2) years.

We are now under the head of selection of place for the 1957 Annual meeting.

DR. ROBERT WILSON (Secretary) Recognized: Mr. Chairman we have a telegram (reading) "Please consider our most cordial invitation to have your next convention at Hotel Fort Sumter in Charleston. Best wishes for a successful meeting. Signed Don G. Grady, Mgr."

I call attention of the house to the fact that Mr. Grady is not a member of the Medical Association. (Laughter)

I have another letter addressed to Mr. Wm. H. Prioleau, M. D., from the management of the Ocean Forest Hotel. "We are going to have air conditioning and another meeting room and we sincerely appreciate the privilege of serving you in the past few days and we hope we may welcome your fine association to Myrtle Beach again in 1957."

These conclude written invitations.

THE CHAIR: Gentlemen, what is your wish?

DR. WESTON (Recognized)—Did the Charleston Medical County Association invite us to Charleston? (Someone said "no.") (Laughter)

Well, Mr. Chairman, I move we accept the manager's invitation for Myrtle Beach and have the meeting at the Ocean Forest Hotel. (This motion received several seconds)

THE CHAIR: Are there any further motions. (The Question was called for.) All in favor of Dr. Weston's motion that we meet next year at Myrtle Beach at the Ocean Forest Hotel will please say "aye". (The vote was taken and was in favor of Myrtle Beach.) We will meet in 1957 at Myrtle Beach.

I want to remind you to be here at 2:55 o'clock, the scientific committee has a wonderful program and we are due the men on the program that much courtesy and expect you back here.

SINE DIE ADJOURNMENT.





## PRESIDENT'S PAGE

The work year of the South Carolina Medical Association is now well under way. Standing and special committees have been appointed. These were published in the July issue of the Journal, which should be kept at hand for reference. In some cases the appointees were designated by special requirements and certain organizations. The others were selected by the president, generally after conference with interested parties. The committees function throughout the year, and in most of them there is some continuity of personnel from year to year.

A great part of the work of the State Association is done by committees. In some instances they represent the Association and serve in an advisory capacity to state and federal agencies. Some committees gather information and make investigations. The Committee on Legislation keeps a watchful eye on measures before the Assembly which affect the Association and the general health of the public. Each committee reports its activities to the House of Delegates and, where warranted, makes recommendations.

The committees in turn are dependent for help upon the members of the Association. In some instances the success of their work is determined by the support they are given. The members of the Association should respond willingly to requests for assistance. They should keep in mind the activities of the Association and further its work by volunteering help and information which they think may be of value.

William H. Prioleau, President  
South Carolina Medical Association.

# Editorials

## MILITARY DEPENDENT CARE

The new military dependent medical care program sets up the financial machinery for furnishing private medical care to hundreds of thousands of wives and children of servicemen. Naturally there will be a concentration of these families around the big military posts where generally there are large military medical facilities. But many thousands of others will be found scattered throughout the country, separated from the serviceman because he is overseas, because housing is unavailable near his post, or for other reasons.

The Defense Department, which has asked the views of the American Medical Association and of other medical, hospital and insurance organizations, now is attempting to draft regulations to implement the new law. The task will take weeks and perhaps months. The main problem facing the Department of Defense is that of choosing a workable method of contracting for private medical and hospital care. There are several possibilities: Blue Cross, Blue Shield, arrangements with state medical societies, commercial insurance or home town care with the government paying according to fee schedules.

Many of us can remember the arrangements for care of obstetrical and pediatric cases during World War II. The program served a useful purpose and was no hardship to the medical people who participated. Indeed, some few made quite a bit of money from it. This new scheme is far more inclusive and expensive to all of us (\$76 million "government" dollars for private care alone in the first year). The cost for care provided in military facilities is not yet even estimated.

Military medical facilities will provide much of the care. Where they are lacking, the private care program will provide:

1. Hospitalization in semiprivate accommodations up to one year for each admission, including all necessary services and supplies furnished by hospital.

2. Medical and surgical care incident to hospitalization.

3. Complete obstetrical and maternity service, including prenatal and postnatal care.

4. Physician or surgeon's services prior to and following hospitalization for bodily injury or surgery.

5. Diagnostic tests and procedures, including laboratory and X-ray examinations accomplished or recommended by the physician incident to hospitalization.

*Note:* Also included under private care may be surgery in a physician's office, X-rays or laboratory tests outside the hospitals, but not "what is normally conceived to be outpatient care." "Reasonable" limitations, additions, exclusions and definitions could be authorized by the Secretary of Defense. Scope of private care may not exceed that furnished in military facilities. If hospitalization is required beyond one year, patients may be transferred to military facilities, or the federal government will assume cost in private facility.

## PUBLIC RELATIONS

Mindful of the accepted need for improvement of relations between the profession and the public, the Association through its Council has secured the services of Mr. Francis Taylor for the furtherance of that end. Mr. Taylor began his career with us by obtaining very satisfactory newspaper coverage of our annual meeting. He is a man of experience in newspaper work and in the field of public relations. It is expected that he will do much toward interpreting the points of view of the Association to the public.

It will probably be necessary that he call on the members of the Association for information or assistance, and it is hoped that such aid will be given freely to him.

## HOW TO VERB A NOUN

Marvelous are the advances of medicine and startling are the new verbs which come about, as new ideas and gadgets develop.

The reason for this profound remark lies in

a recent meeting at which the speaker said that he had "culdescope" his patient. Now the culdescope is a new sort of instrument to me, and thanks to my construction, one which does not carry any great potentialities of future personal application such as do the laryngoscope, bronchoscope, proctoscope, cystoscope and many other prying implements of investigation. It is unlikely, then, that I will ever have to accept the fact that I have been "culdescope."

This fancied immunity will in no way protect me from the possibilities of being "bronchoscope", "proctoscope", "cystoscope", or "scope" in numerous other ways. For those experts who handle these instruments there is not likely to be a retreat from the use of these "words", whatever frowns may be frowned by those who do not approve of the freehand transformation of nouns into verbs.

Shall we fall into line and accept them with a mild struggle, or shall we give in completely and carry out the whole process, so that the next patient who comes into the office will be heightened, scaled, snellened, otoscoped, stethoscoped, tongue-bladed, blood-pressured, hemoglobinometered, urinalysised, hemocytometered, and generally gone over with a fine collection of all the noun-verbs we can conjure into being? Heaven forbid!

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WILLIAM ATMAR SMITH, M. D., LL. D.

Some years ago it was deemed proper that the contributions and accomplishments of Billy Smith of Charleston should be recognized by his election to the presidency of this Association, and by this move his friends and colleagues expressed their admiration and affection for him. Now, on the 50th anniversary of his graduation from The Citadel, his alma mater in the same spirit has conferred upon him the honorary degree of doctor of laws.

Such public recognition of our own medical confreres is gratifying to us all. Surely no one could deserve such honor more than our former president and present friend.

## CIRCUMCISION—RITUAL, REFORM, OR REMUNERATION?

Perhaps it is only a local custom, but circumcision of the newborn has become so much of a routine that the performer, usually the obstetrician, proceeds with his trimming as a matter of course and sometimes even without the formality of consent from the parents. In this last matter he may yet stumble to his downfall.

For thousands of years there has been a division of opinion as to the rationale of this operation. Most of those who have investigated the early origins of the practice are convinced that it began as a rite concerned with fertility and the coming-of-age. One part of this conviction comes from the fact that circumcision was and is practiced in primitive tribes who had no concept of cleanliness in general, and even today in certain places in older boys is a trial of courage rather than a means for cleanliness. Its use independently in different widely spread areas of the world detracts from its attachment to any one culture. Many generations before its general use by the Hebrews it had been required in other nations, and had become a routine procedure.

Until recently reasoning for the use of circumcision has been based largely on the concept of cleanliness. Perhaps that is a sound argument, but it is not likely that one makes an innately unclean person cleanly by divesting him of his foreskin. The thought has been advanced by some physicians of the armed services that the conditions of modern war, or perhaps of any war, makes cleanliness difficult and circumcision a desirable means of promoting better cleaning—a sad concession to the prospect that man the pugnacious must always be prepared in every conceivable way for a new conflict. Occasionally a parent, when questioned as to the reason for desiring circumcision of the child, says that he does not wish his son to be conscious of a difference in appearance from the rest of his circumcised friends—an iatrogenic complication of thought, and a futile hope of achieving standardization by way of superficial surgery.

Now the observation that cancer of the cervix and cancer of the penis are almost unknown in Jewish people particularly, and circumcised

peoples generally, has been presented as evidence that smegma is a carcinogen; the logical argument is that elimination or reduction of the amount of accumulation of smegma as the result of circumcision is the factor which is responsible for the pleasing absence of these neoplastic diseases in a race which observes circumcision strictly. There is still room for proof of the assumption. Does this operation also explain the frequency of diabetes in the same race?

If this matter can be pursued to a satisfactory conviction, then circumcision might obviously become a requirement in prophylactic medicine. Indeed, in our area it is almost that now; even though the infant be born with little or no foreskin, he must be put through the mutilation. There are many pediatricians who object to the routine, many others acquiesce or encourage.

One must hesitate to impute any mercenary motive to the practice. The operation carries a fee, it is relatively safe and possibly harmless, but unless the operator is convinced of its usefulness and soundness he is open to the suspicion of being attracted more by the fee than by the conviction of necessity. At present the proof of necessity is not positive, and the operator's conscience must be his guide.

At any rate, the present day surgeon does not get the fees that once came from the operation. Witness the following: "Wherefore David rose and went, he and his men, and slew of the Philistines two hundred men; and David brought their foreskins, and they gave them in full tale to the king, that he might be the king's son-in-law. And Saul gave him Michal his daughter to wife." (I Samuel 18: 27).

An eye for an eye, a tooth for a tooth, and two hundred foreskins for a wife. At the present rate, that many foreskins would not buy even a mink coat for the lady.

The Doctors have established their Medital Societies and have both their State and County Meetings, by which they have so nearly enielated Quacary of all kinds, that a poor man cant git so grate cures of them now for a ginna, as he could 50 years ago of an old Squaw for halfe a pint of Rhum. The business of a Midwife could be performed 50 years ago for halfe a doller & now it costs a poor man 5 hole ones. *The Key of Liberty*, William Manning. 1798.

## ANNOUNCEMENTS

### THE SOUTH CAROLINA CHAPTER OF THE AMERICAN ACADEMY OF GENERAL PRACTICE

The Annual Scientific Meeting of the South Carolina Chapter of the American Academy of General Practice will be held at the Clemson House, Clemson, S. C., September 6 and 7, 1956. While the program of this meeting is especially geared to the needs of the general practitioner, it should be of interest and benefit to all physicians of the state.

The Academy extends a cordial invitation to all physicians of the state to attend our scientific sessions. This is an opportunity for all general practitioners to "look us over"; and if you like what you see you may apply for membership.

#### Tentative Program

September 6, 1956

- 8:00- 9:15—Registration and Visit Exhibits
- 9:15- 9:30—Invocation and Address of Welcome
- 9:30-10:10—Some Comments on Auscultation of The Heart  
Dr. Willis Hurst, Emory University Medical School
- 10:10-10:50—Child Health Care by the General Practitioner  
Dr. Wilburt T. Davison, Duke University
- 10:50-11:20—Visit Exhibits
- 11:20-12:40—The Bio-Flavinoids—Dr. Gustav J. Martin, Research Director, National Drug Company. 34 minute film subject: Clinical Enzymology—Trypsin  
Dr. Herbert S. Kupperman, New York University Medical School.
- 12:40- 1:00—Visit Exhibits
- 1:00- 2:30—Luncheon with wives. Speaker to be announced
- 2:30- 3:10—Palliative Treatment of the Constitutionally Inadequate Patient  
Dr. Hugh A. Matthews, Canton, N. C.
- 3:10- 3:50—The Management of Coronary Artery Disease  
Dr. Willis Hurst, Emory University Medical School
- 3:50- 4:20—Visit Exhibits
- 4:20- 5:00—The Home and Office Care of Diabetes  
Dr. Robert Wilson, Charleston, S. C.
- 5:00- 5:40—Accidents and Poisoning  
Dr. Wilburt C. Davison, Duke University Medical School
- 5:40- 6:00—Visit Exhibits
- 6:30 —Cocktails
- 7:30 —Banquet. Speaker: Mr. Mac Cahal, Executive Secretary of the American Academy of General Practice, Kansas City, Missouri.

September 7, 1956

8:00- 9:00—Registration and Visit Exhibits

9:00- 9:40—Abdominal and Pelvic Complications  
Giving Rise to Genito-Urinary Symptoms. Dr.  
Park Nicely, Acuff Clinic, Knoxville, Tennessee.

9:40-10:20—Office Management of Leukorrhoeas  
Dr. Leslie V. Dill, Georgetown University, Wash-  
ington, D. C.

10:20-10:50—Visit Exhibits

10:50-11:30—Medical and Surgical Treatment of the  
Prostate Gland

Dr. Park Nicely, Acuff Clinic, Knoxville, Ten-  
nessee

11:30-12:10—Cupid and Caducuss

Dr. Hugh A. Matthews, Canton, N. C.

12:10-12:30—Visit Exhibits

12:30- 2:00—Luncheon. Speaker: Dr. William  
Prioleau, President of the South Carolina Medical  
Association

2:30- 3:00—Questions and Answers—All Speakers

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Tennessee Valley Medical Assembly, Read House,  
Chattanooga, Tennessee, Monday, October 1, and  
Tuesday, October 2, 1956. Presentations by: Drs.  
Walter C. Alvarez, Philip S. Hench, J. P. Greenhill,  
Guy W. Horsley, Dwight H. Murray, Eugene P.  
Pendergrass, Tom D. Spies, Francis Eugene Sene-  
ar, James L. Poppen, Henry W. Cave, Russell Blattner,  
J. Hartwell Harrison, Henry L. Bockus, Robert E.  
Gross, John S. Lundy, T. Campbell Thompson.  
Banquet speaker, Dr. Fred C. Schwarz, Sydney,  
Australia.

Honor Guest, Dr. Dwight Murray, President of the  
American Medical Association, Napa, California.

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The Tri-State Obstetric-Pediatric Seminar will be  
held at the Daytona Plaza Hotel, Daytona Beach,  
Florida, September 10, 11, 12, 1956.

This Seminar is being sponsored by the Maternal  
and Child Health Divisions of Florida, South Carolina,  
and Georgia, and the Maternal Welfare Committee of  
the South Carolina Medical Association. Application  
has been made to the Academy of General Practice  
for credit approval and it is expected that this will  
be granted. There will be no tuition fee.

#### *Tentative Program*

### TRI-STATE OBSTETRIC-PEDIATRIC SEMINAR MONDAY, SEPTEMBER 10

#### Pediatric Day

##### *Morning*

Renrolental Fibroplasia ----- Discussion Leader  
Dr. Edith Potter

Presentation of Pediatric Cases (limited to 6 minutes  
each)

Discussion by Panel—Dr. Sydney Gellis, Dr. James G.  
Hughes, Dr. Edith Potter, Dr. Robert Lawson

##### *Afternoon*

Continued Presentation of Pediatric Cases

Discussion by Panel

TUESDAY, SEPTEMBER 11

##### *Morning*

Induction of Labor—Dangers and Complications

Dr. Charles H. Hendricks

X-Ray Diagnosis in Pregnancy ----- Dr. John Parks

Diagnosis and Treatment of Abdominal Pregnancy

Dr. Milton L. McCall

##### *Afternoon*

Recreation

8 P. M.—Round Table Discussion ----- Entire Panel

WEDNESDAY, SEPTEMBER 12

##### *Morning*

Medical and Surgical Management of Repeated  
Abortions ----- Dr. Georgeanna Jones

Pregnancy in the Abnormal Uterus

Dr. Howard Jones

Management of Breech Presentations

Dr. William J. Dieckmann

##### *Afternoon*

Round Table Discussion ----- Entire Panel

### THE SOUTH CAROLINA PEDIATRIC SOCIETY MONDAY, SEPTEMBER 10

Evening meeting with The Columbia Medical Society  
7:30 P. M.

William T. Newson, M. D., Medical Director, Pre-  
mature Infant Center, Charity Hospital of Louisiana,  
New Orleans, will speak on "Anticipatory Manage-  
ment of Newborn Infants." Highlights for the dis-  
cussion will include delivery-room care, resuscitation,  
common diagnostic problems of the first five days, and  
recommendations for guidance of mothers.

Jerome Glaser, M. D., Rochester, N. Y. will speak  
on "The Child with Frequent Colds".

TUESDAY, SEPTEMBER 11

##### *Morning Session*

Margaret Q. Jenkins, M. D., Charleston, will pre-  
sent a paper on "Osteomyelitis in Sickle-cell Disease.

George D. Johnson, M. D., Spartanburg, will give a  
case report of "Hypo-adrenalism" in a child.

##### *Afternoon Session*

Dr. Newson will speak on "Problems in Practical  
Care of Premature Infants".

Dr. Glaser will speak on "The Prophylaxis of  
Allergic Diseases in Infancy and Childhood".

### INTERNATIONAL COLLEGE OF SURGEONS TO HOLD ANNUAL CONGRESS

The 21st Annual Congress of the United States and  
Canadian Sections, International College of Surgeons,  
will be held in the Palmer House, Chicago, September  
9-13. The meeting will be attended by surgical celebri-  
ties from many foreign countries as well as from all  
parts of the United States and Canada.

The International House of Delegates also will meet  
in the morning of the opening day, Sunday. In the  
afternoon, the House of Delegates of the United

States Section will convene for the biannual election of officers and for other business.

Developments in surgical research, techniques and philosophy will be discussed during the world's largest meeting of surgeons, the 42nd annual Clinical Congress of the American College of Surgeons, in San Francisco, October 8 through 12, 1956. More than 10,000 surgeons, physicians, students, and related medical personnel from all parts of the nation and many foreign lands are expected to attend.

Dr. Frank Gerbode, San Francisco, Associate Professor of Surgery, Stanford University School of Medicine, is Chairman of the local Advisory Committee on Arrangements.

#### PIEDMONT ASSEMBLY

The meeting of the Piedmont Post Graduate Clinical Assembly is to be held at the Clemson House on September 19th and 20th. An interesting program is being arranged for the afternoon and evening of both days.

Dr. Kenneth Warren, Surgeon at Lahey Clinic, will speak on "A Panoramic View of Cancer of the Gastro-intestinal Tract" and "The Prevention and Repair of Surgical Catastrophies".

Dr. J. A. Bargaen of Mayo Clinic, will speak on "Problems Associated with Management of Ulcerative Colitis" and "The Diagnosis and Management of Diverticulitis of the Intestines".

Dr. McLemore Birdsong, Professor of Pediatrics at the University of Virginia Hospital, will speak on "Modern Immunization" and "Emergency Conditions of the Newborn Infant".

Dr. Andy Hall, General Practitioner of the Year in 1950, will give the after-dinner address on the evening of September 19th, entitled "Experience of 66 Years in General Practice".

Dr. Henry Theodore Bahnson, Associate Professor of Surgery at Johns Hopkins Hospital University, will speak on "Surgery of the Aorta" and "Recent Advances in Cardiac Surgery".

Dr. Warde B. Allan of Johns Hopkins University, will speak on some aspects of geriatric medicine and chronic pulmonary disease of the aged.

#### THE AMERICAN COLLEGE OF PHYSICIANS

Schedule of Postgraduate Courses, Autumn, 1956

The following nearby courses have been arranged through the generous cooperation of the directors and the institutions at which the courses will be given. Tuition fees for all courses will be: Members, \$30.00; Non-members, \$60.00. Full details of these courses may be obtained through the Executive Offices of the College, 4200 Pine Street, Philadelphia 4, Pa.

Course No. 1, RECENT ADVANCES IN CARDIO-VASCULAR DISEASE: Mt. Sinai Hospital, New York, N. Y.; Arthur M. Master, M. D., F. A. C. P., and Charles K. Friedberg, M. D., F. A. C. P., Co-directors.

Course No. 2, CLINICAL NEUROLOGY: Jefferson Medical College of Philadelphia, Philadelphia, Pa.; Bernard J. Alpers, M. D., F. A. C. P., Director.

Course No. 3, INTERNAL MEDICINE: Vanderbilt University School of Medicine, Nashville, Tenn.; Rudolph H. Kampmeier, M. D., F. A. C. P., and Hugh J. Morgan, M. D., M. A. C. P., Co-directors.

Course No. 6, GASTRO-ENTEROLOGY: University of Pennsylvania Graduate School of Medicine, Philadelphia, Pa.; Henry L. Bockus, M. D., F. A. C. P., Director.

Course No. 8, PATHOLOGIC PHYSIOLOGY OF THE BLOOD DYSCRASIAS: Washington University School of Medicine, St. Louis, Mo.; Carl V. Moore, M. D., F. A. C. P., William J. Harrington, M. D., (Associate), and Edward H. Reinhard, M. D., (Associate), Co-directors.

Students Have A Choice of Topics In The  
1957 AAPS ESSAY CONTEST  
FOR HIGH SCHOOL STUDENTS  
"The Advantages of Private Medical Care"

or  
"The Advantages of The American Free  
Enterprise System"  
\$1,000 FIRST PRIZE

Eleventh Annual National Contest  
Sponsored by

*Association of American Physicians and Surgeons'*  
*Freedom Programs, Inc.*  
*with the Cooperation of*  
*State and County Medical Societies*

County and State Medical Societies and Auxiliaries  
Are Invited to Sponsor the 1957 AAPS Essay Contest

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## DEATH

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### DR. ISAAC SHEPHERD FUNDERBURK

Dr. Isaac Shepherd Funderburk, 73, former mayor of Cheraw and Chesterfield County's oldest practicing physician, died recently after a short illness.

Dr. Funderburk had lived in Cheraw since 1919 and had served on the town council as mayor for several terms. He was a charter member of the Lions Club, of which he served as president.

From 1910 to 1919 he had practiced medicine at Mt. Croghan and also was president of the Bank of Mt. Croghan.

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## BOOK REVIEWS

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*HUNTERDON MEDICAL CENTER.* A story of one approach to Rural Medical Care by Ray E. Trussell, M. D. A Commonwealth Fund Book, Harvard University Press.

This book describes an unusual experiment in furnishing medical care to a rural community that had previously had no hospital facilities of any kind. The project of providing a local hospital began along the

usual lines with public fund raising of staggering proportions for a comparatively small farming community.

The unusual features of this venture—amounting to almost an adventure—is the fact that this rural hospital has for the past three years been staffed by able specialists, all of whom are on salary, and all of whom also hold academic positions in medical schools.

This was brought about by affiliation with the New York University—Bellevue Medical Center, an affiliation that allows the local general practitioners in the County to serve on the staff of the hospital and to share responsibility for their patients with the full time specialists, and at the same time provides unusual field teaching facilities for the University Medical Center. The members of the house staff, consisting of interns and residents, serve on a rotation basis of four months from affiliated hospitals of the New York University—Bellevue Medical Center; and one of the attractions of this project, as it relates to its teaching accomplishments is the set-up whereby third and fourth year medical students stay for periods of one to four months for accredited training.

The Hunterdon Medical Center, begun in 1946 as a hospital building project, has within the past three years, evolved into a true Medical and Health Center designed to serve the County's need.

I heartily recommend this well written story of an experiment in medical care—a heart warming story of what a community can accomplish with good leadership and a willingness to join hands in active cooperation with neighboring groups.

Leon Banov, M. D.

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*THERAPY OF FUNGUS DISEASES (AN INTERNATIONAL SYMPOSIUM)* edited by Thomas H. Sternberg, M. D. and Victor D. Newcomer, M. D. Little, Brown and Co. 1955. Price \$7.50.

This is an important volume of collected papers presented June 1955 at an international symposium on fungus diseases. It covers a field of increasing importance since the worldwide incidence of fungus diseases is rapidly expanding. The reviewer has had personal research experience with diphenylpyraline, chlorquinaldol, nystatin and MRD-112. Much basic research work on fungi is presented.

Perhaps the most useful parts of the book deal with nystatin in the systemic and local treatment of moniliasis in its various clinical forms. This seems to be a really useful and valuable substance. In the rarer conditions, blastomycosis and coccidiomycosis, the role of the stilbamidine derivatives is brought out. These are still the best method of treatment for blastomycosis.

No outstanding effective treatment for tinea capitis or certain cure for fungus infection of the feet is yet presented.

This is an excellent compilation of most of the important recent research work on the major fields of fungus study and deserves a place in the library of all interested in this work.

J. M. van de Erve, Jr.

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*DICTIONARY OF DIETETICS*, by Rhoda Ellis. Philosophical Library, New York. \$6.00

This is a book for the dietitian or layman rather than for the medical man, who will find the same material in his own more ample dictionary. It should be a useful volume, though one might question some of the definitions and a little of the spelling. As examples picked casually, flatus and eructation do not seem synonymous, hypoallergenic means something different from the definition given, and Lonolae is Lonolae, not Lonolae.

J. I. Waring, M. D.

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*THE NEUROSES IN CLINICAL PRACTICE* by Henry P. Laughlin, M. D., Assistant Clinical Professor of Psychiatry, George Washington University School of Medicine; Head, Psychiatry and Neurology Division, Suburban Hospital, Bethesda, Md.; Consultant in Psychiatry, Walter Reed Army Medical Center. 802 pp. W. B. Saunders Co., Philadelphia. \$12.50.

Some years ago, a friend was in a filling station. That year the Dodge car was bought by Chrysler. My friend remarked to Ike, who was the handy man about the station, "Ike, what does that new Dodge look like?" Ike's answer was, "Boss, if you lift up the hood, dere is old man Chrysler looking right at you."

Laughlin's readable book "The Neuroses in Clinical Practice" is pure Sigmund Freud looking at you from under the cover. It is quite readable. The illustrative cases are well chosen. But it is with the portion dealing with treatment with which we are concerned. In the author's treatment of "depression" this comes out in the clearest manner. He makes this statement, "The treatment of choice in depression, when it is available and when it is feasible, is extensive psychotherapy in expert hands." But such treatment is available in only about 5 to 15 per cent of patients because of the scarcity of psychiatrists capable of carrying it out, and for economic reasons to relatively few people. The endless consumption of time in such treatment is an important factor. This view is expressed well in a footnote in which the author quotes one of his reviewers (p. 442), who also states the case for electroconvulsive therapy.

A worth-while book.

Olin B. Chamberlain, M. D.



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## CORRESPONDENCE

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June 8, 1956

South Carolina Medical Association  
State A.M.E.F. Committee

Attention: R. L. Crawford, M. D.  
Chairman

Dear Dr. Crawford:

The Barnwell County Medical Society, at a recent meeting, voted to send \$10.00 per member out of the treasury fund, annually, to the American Medical Education Foundation. Enclosed herewith is a check from the Barnwell County Medical Society in the amount of \$100.00 to cover the donation of the ten members of the Society.

The following is a list of the members and the designation of the school to which each member desires his donation of \$10.00 to be allocated:

Williston—Dr. A. D. Gantt, Medical College of South Carolina, Charleston, S. C.

Barnwell—Dr. Henry Gibson, Medical College of South Carolina, Charleston, S. C.

Barnwell—Dr. Edwin Wallace, University of Tennessee, Memphis, Tenn.

Barnwell—Dr. Robert Piper, College of Medicine, University of Cincinnati, Cincinnati, Ohio.

Blackwell—Dr. J. F. Kneee, Medical College of South Carolina, Charleston, S. C.

Williston—Dr. Wallis Cone, Medical College of South Carolina, Charleston, S. C.

Williston—Dr. Lang Anderson, Medical College of South Carolina, Charleston, S. C.

Williston—Dr. C. C. Freeman, Medical College of South Carolina, Charleston, S. C.

Barnwell—Dr. L. M. Mace, Medical College of South Carolina, Charleston, S. C.

Barnwell—Dr. Herbert Gross, Medical College of South Carolina, Charleston, S. C.

It is the hope of the Society that these donations will be of great benefit in this most worthwhile project. The Society is also interested in contacting the various businesses in this vicinity, in order to obtain donations to the National Fund for Medical Education, however the Society is very inexperienced in this type of program and is seeking information and advice as how to handle such a drive. At the recent meeting of the South Carolina Medical Association at Myrtle Beach, I had the pleasure of consulting with Mr. M. W. Meadors, Executive Secretary Counsel, of the American Medical Association, and he informed me that in the very near future, we would receive rather detailed information as to how to contact business and industry in order to obtain donations to the National Fund for Medical Education. No information, in this respect, has been received as yet. The Society would appreciate any information that we may receive from your Committee in this connection.

Very truly yours,  
Luther M. Mace, M. D.  
Secretary, Treasurer  
Barnwell County Medical Society

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## NEWS

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A surprise testimonial dinner honoring Dr. J. R. Young on the occasion of his 50th anniversary of practice in Anderson was held June 29, attended by more than 150 fellow physicians and friends.

Following the dinner close friends of Dr. Young spoke on various phases of his career.

Dr. R. C. Grier, former president of Erskine College and lifelong friend of Dr. Young, told of the doctor's boyhood and college days and of his entry into the medical profession.

Dr. Thomas R. Gaines then told of Dr. Young as "The Surgeon;" Aubrey Marshall, president of the Chamber of Commerce, told of Dr. Young, "The Citizen;" and Dr. J. P. Pressley told of Dr. Young as "the Christian Gentleman." T. F. Watkins served as toastmaster.

Dr. Clyde Bowie, representing Anderson physicians, presented Dr. Young with a gift and a plaque expressing appreciation for his fine work and leadership.

Dr. John Rainey then presented Dr. Young with a portfolio of letters.

A resolution from the Board of the First National Bank of South Carolina and a telegram from Wilton E. Hall, out of the city on business, were read.

The event was brought to a close with a few words of appreciation from Dr. Young and group singing of "For He's A Jolly Good Fellow."

J. V. Denning, M. D. announces the opening of his office at Hollywood, S. C. for the general practice of medicine.

Laurie L. Brown, M. D. announces the opening of his office for the practice of anesthesiology, 55 Doughty Street, Charleston.

J. Ray Ivester, M. D. announces the opening of his office for the practice of anesthesiology, 55 Doughty Street, Charleston.

George R. Wilkinson, M. D. announces the association with George R. Wilkinson, Jr., M. D., 300 East North Street, Greenville.

Dr. Purvis James Boatwright has assumed his duties as an assistant physician at the South Carolina State Hospital.

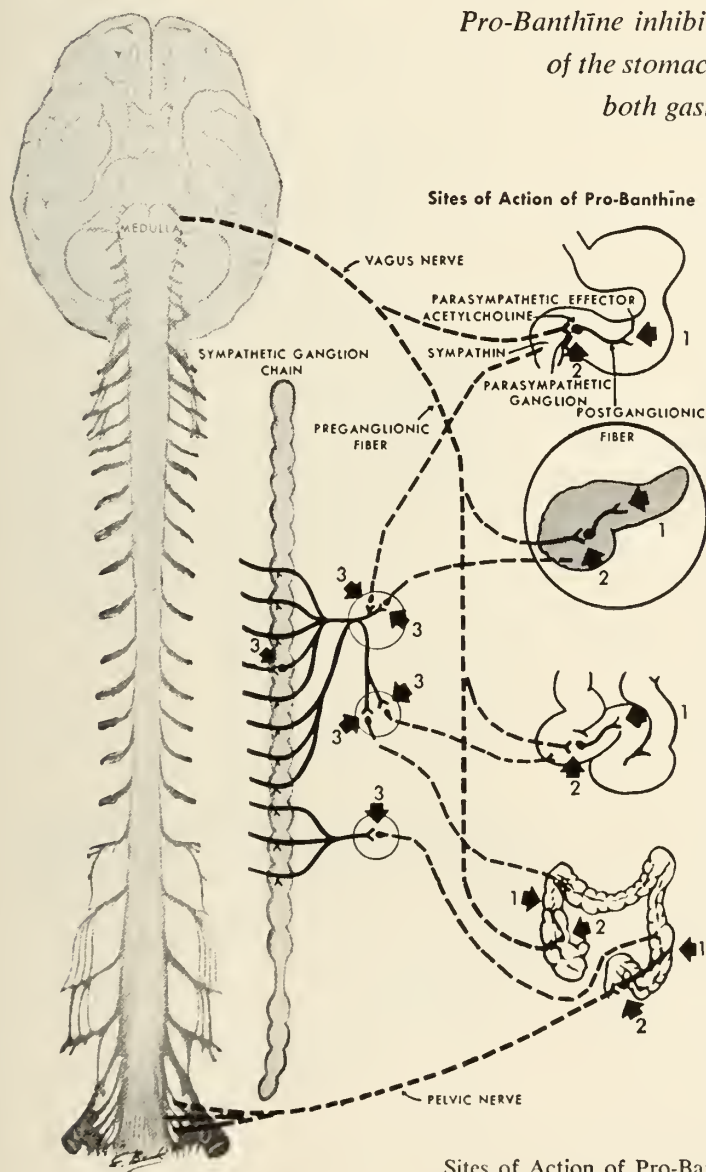
During the two years he was medical director of the Tidewater Hospital, Beaufort.

Dr. George L. Irwin of Chester, who has been in general practice in Sumter for the past year, will begin a three-year residency in radiology at the North Carolina Memorial Hospital at the University of North Carolina on July 1.

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1. Jones, C. A.: Arch. Int. Med. 96:332 (Sept.) 1955.
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3. Woodward, E. R.: M. Clin. North America 38:115 (Jan.) 1954.
4. Schwartz, I. R., and Hinton, J. W.: Personal communication, February, 1955.

*Sites of Action of Pro-Banthine. The principal site of action of Pro-Banthine is on the parasympathetic system where it exerts a dual action while exerting a single and lesser action on the sympathetic system; (1) parasympathetic effector; (2) parasympathetic ganglion; (3) sympathetic ganglion (see arrows).*

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Dr. William F. Early of Norfolk, Va., has arrived in Timmons ville where he will be associated with Dr. J. Frank Davenport at the Davenport Clinic.

Dr. Early was born in Darlington.

He attended the schools of Darlington and graduated from Florence High School. He graduated from Clemson College in 1941 and served in the Army for five years, three and a half over seas. He was discharged in 1946 as a captain in the infantry.

He attended medical school at the University of Virginia and graduated in 1954. Dr. Early served his internship at Norfolk General Hospital and recently completed his residency in general practice there.

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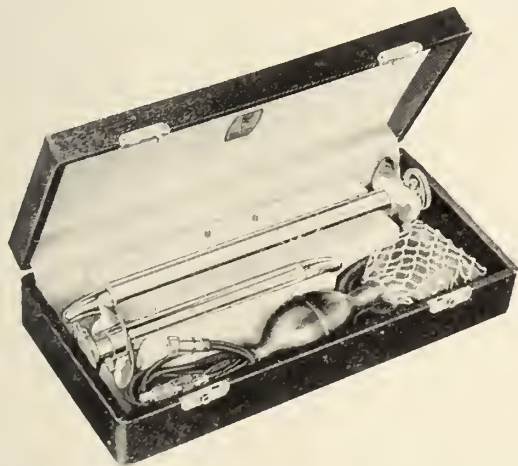
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# The Journal

of the

## South Carolina Medical Association

VOLUME LII

September, 1956

NUMBER 9

### THE USE OF HYDROCORTISONE DURING ANESTHESIA, SURGERY AND THE POST-OPERATIVE PERIOD

WILLIAM S. HOWLAND, M. D.  
New York, N. Y.

The introduction of the rapidly acting soluble forms of hydrocortisone for intravenous administration has provided the anesthesiologist with a valuable adjunct to his armamentarium. Approximately eighty per cent of the corticosteroids found in the adrenal venous blood is hydrocortisone and the administration of this agent represents a physiologic replacement for adrenal cortical insufficiency which may occur during operation or anesthesia.<sup>1, 2</sup> Hellman has demonstrated that irrespective of the amount of hydrocortisone given over a 30 minute period, seventy-five per cent of the material or its breakdown products is demonstrated in urine or stool within 24 hours.<sup>3</sup> There is, thus, a rapid excretion of hydrocortisone which makes the drug relatively harmless if given in excessive amounts, since its presence in the body and its metabolic effects are of short duration. In patients with liver disease care should be taken that excessive amounts of hydrocortisone are not administered because of the prolongation of the rate of its inactivation in this condition. Depression of adrenal cortical activity is a possibility. Rukes, *et al* have shown that the intravenous infusion of 100 mg. of hydrocortisone for 8 hours will produce transient evidence of adrenal cortical suppression which is most apparent during the third eight-hour period after discontinuing the infusion.<sup>4</sup> Therefore, in patients who require hydrocortisone in the operative period the advisability of longer maintenance therapy with cortisone with the gradual

reduction of the daily dose should be considered.

The therapeutic use of hydrocortisone during anesthesia and operation is suggested in the following conditions. 1) Patients who have received large amounts of blood, which is considered to have been adequately replaced, failed to respond to vasopressors, and in whom the hypotension persists. 2) Patients in whom the adrenal gland has been removed surgically, as in operations of bilateral adrenalectomy for metastatic carcinoma or for malignant hypertension. 3) Patients who have had a history of previous anesthesia difficulties especially prolonged awakening times or prolonged hypotension. 4) Patients who have had several operations in the recent past. 5) Patients who have received cortisone previously for prolonged periods but have had it recently discontinued with the development of iatrogenic adrenal insufficiency. 6) Patients with known Addison's disease who may have been prepared pre-operatively with cortisone but who developed hypotension of an unexplained origin during the anesthesia and surgical procedure. 7) Patients who do not react from anesthesia as rapidly as expected, especially, those with respiratory depression and hypotension.

Case 1—R. S. (Figure 1). A 57 year old female, blood pressure 170/100, hemoglobin 14.2, diagnosis, recurrent carcinoma of the rectum involving bladder. Operation, total pelvic exenteration. Blood pressure in operating room 180/100, pulse 90, respiration 20.

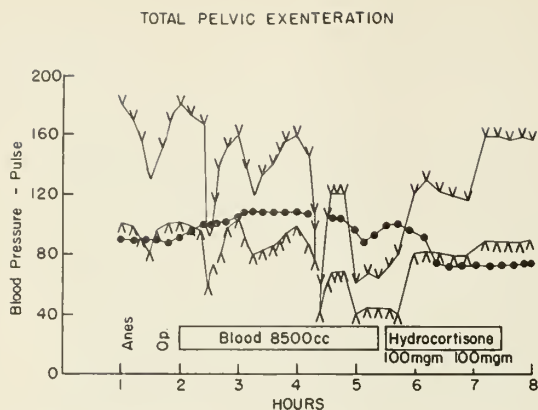


Figure 1

Anesthesia—ether analgesia. This was an extensive procedure requiring large amounts of blood replacement. She received 8000 ml. of blood in the first two hours and forty-five minutes of operation. Despite what was believed to be adequate blood replacement great difficulty was experienced in maintaining the blood pressure. An additional 500 ml. of blood was started which still elicited no adequate response in the blood pressure and at this time 100 mg. of hydrocortisone diluted in 500 ml. of five per cent dextrose in water was started. Within ten minutes there was a response in the blood pressure which was still below pre-operative levels (Figure 1). In the recovery room the patient failed to maintain the expected blood pressure and another 100 mg. of hydrocortisone was given intravenously. This produced an immediate response in the blood pressure which approached levels which had been seen pre-operatively and the patient continued with an uneventful post-operative course.

Case 2—E. L. (Figure 2). A 17 year old female, blood pressure 130/96, hemoglobin 15.7, diagnosis, recurrent neurosarcoma of left neck. Patient was taking 0.5 grain of desiccated thyroid (Proloid) four times a day for hypothyroidism. Operation, left radical neck dissection. Anesthesia thiopental (Pentothal) nitrous oxide oxygen, endotracheal. Approximately two hours after the start of anesthesia and with adequate blood replacement this patient exhibited an increasing tachycardia with sudden disappearance of the blood pressure (Figure 2). There was no response to twenty mg. of Vasoxyl (methoxamine) intravenously or to procaine injection of the carotid bulb. The possibility of a tension pneumothorax was entertained but was disproved. After 15 minutes an infusion of 100 mg. of hydrocortisone was started intravenously. When 200 ml. of the solution had been administered and approximately five minutes after the start of the infusion the blood pressure became perceptible at 170/110 and the pulse fell to approximately 84 beats per minute. Post-operatively the tachycardia recurred without hypotension. This tachycardia did not respond to celandid or digitoxin. On the fifth post-operative day the pulse was returned to pre-operative levels. No cause

for this tachycardia was discovered although the possibility of hyperthyroidism was not disproved.

Case 3—S. L. Male, age 55, blood pressure 100/60, hemoglobin 17.7. Operation, hydrocelectomy and exploratory laparotomy. This patient arrived in the operating room with a blood pressure of 100/60 and a pulse of 70 which was maintained with slight variations throughout the three hour operation. At the time of the hydrocelectomy the fluid was found to contain a large amount of chyle. It was the opinion of the surgeons that the abdomen should be explored and consequently the anesthesia which had been maintained with Pentothal and nitrous oxide oxygen was changed to ether. The patient received ether intermittently for approximately one hour. It was believed that the patient was in a light plane of anesthesia throughout. The operation proceeded uneventfully until the patient was returned to the recovery room. In the recovery room after one hour and a half the patient's respirations were depressed, the color was poor and he had failed to respond from the anesthesia. In the belief that this may have been a manifestation of adrenal cortical insufficiency, 100 mg. of hydrocortisone were added to 500 ml. of five per cent dextrose in water and given intravenously. Within ten minutes the patient had awakened, become pink and the respirations had increased in depth. Fifty milligrams of cortisone b.i.d. were given for the next two days and then discontinued. The patient had an uneventful post-operative course.

#### E.L. LEFT RADICAL NECK DISSECTION

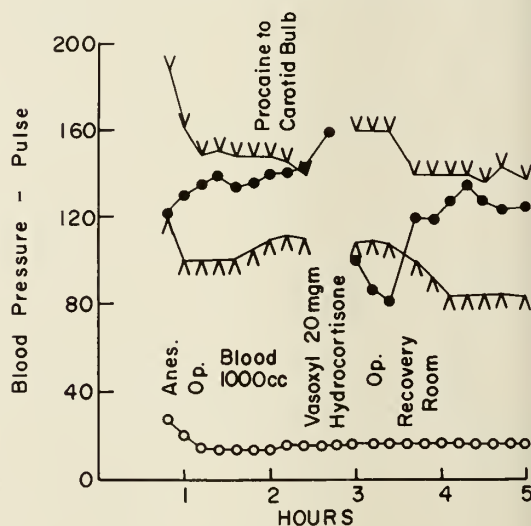


Figure 2

Case 4—R. M. A 52 year old female came to the operating room with a blood pressure of 100/60. The operation was a subtotal gastrectomy for gastric bleeding. The operation proceeded uneventfully for

the first two and one half hours at which time the patient developed a tachycardia and hypotension. At this time 2500 ml. of blood had been replaced, which was more than the measured loss. It was believed that this hypotension might have been a manifestation of acute adrenal insufficiency and 100 mg. of hydrocortisone was given rapidly in 500 ml. of dextrose and water. Some response was evoked but the patient still remained severely hypotensive. Additional blood was started with no response. The patient failed to respond to vasopressors and there was considerable doubt as to the cause of the hypotension. The possibility of myocardial infarction was considered. At this time, however, the stomach was opened and found to contain over 1800 ml. of fresh blood. Immediately three pints of blood were administered rapidly with an instantaneous response in the patient's blood pressure which was maintained throughout the rest of the operative course.

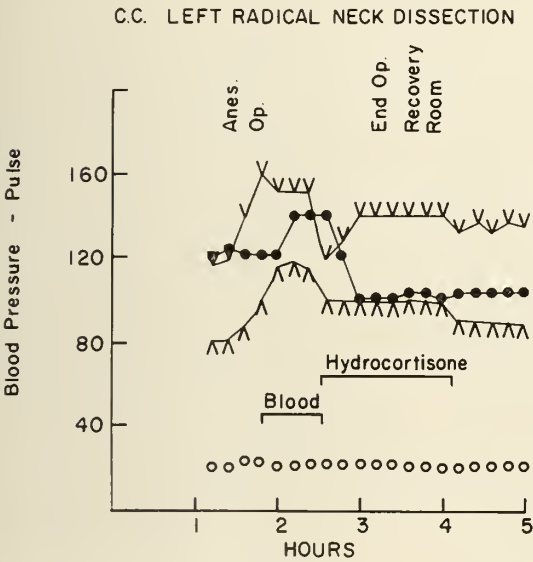


Figure 3

Case 5—C. C. (Figure 3). A 54 year old female with a blood pressure 138/90 and hemoglobin 13 grams. Patient had undergone a thyroidectomy four months before and had received two grains of desiccated thyroid daily since then. The patient arrived in the operating room in an extremely apprehensive condition. Her blood pressure was 140/110 and her pulse rate was 120, on admission, 76. The operation was a left radical neck dissection requiring 500 ml. of blood which was considered to be adequate. Despite the administration of the blood the patient's pulse continued to rise until it was 140 beats per minute and the blood pressure fell to 120/100. Respirations were unchanged. The patient received 100 mg. of hydrocortisone intravenously and in ten minutes the pulse

rate had fallen to 100 per minute and the blood pressure had returned to 140/100. Post-operatively the patient maintained a pulse in the neighborhood of 100 beats per minute and a blood pressure of 120 to 130/80. The patient received 50 mg. of cortisone b.i.d. for three days and had an uneventful post-operative course.

Case 6—T. H. (Figure 4). A 55 year old female with blood pressure of 155/90, hemoglobin 14.6 grams pre-operatively. Operation, bilateral adrenalectomy. She was prepared with 300 mg. cortisone i.m. for the twelve hours preceding the operation and 100 mg. of cortisone orally the morning of operation. Four hours after the start of anesthesia the patient exhibited a hypotension of a rather marked degree which responded slightly to vasopressors but again fell. Blood was administered at this time with some effect and a vasopressor was again given with some improvement in the blood pressure. However, the blood pressure continued to fall and the pulse rate increased until five hours after the start of anesthesia, the blood pressure was 60/40 and the pulse was weak, thready and barely obtainable. At this time 100 mg. of hydrocortisone and 500 ml. of dextrose with water was given rapidly and within ten minutes a vasopressor effect was obtained which persisted throughout the remainder of the operation and in the recovery period. This patient received 50 mg. of cortisone i.m. every four hours for the first three days with gradual decreasing doses until the maintenance dose of 50 mg. b.i.d. was obtained.

T. H. BILATERAL ADRENALECTOMY AND OOPHORECTOMY

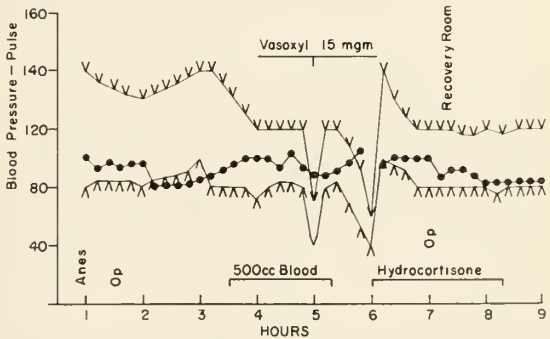


Figure 4

## DISCUSSION

The value of intravenous hydrocortisone in patients with hypotension which does not respond to blood replacement or vasopressors has been reported previously.<sup>4, 5</sup> At the present time it represents a valuable method for combating some cases of so-called "irreversible shock". As replacement therapy when the adrenal glands are removed its value has been known for some time. Patients who are ade-

quately treated pre-operatively with at least 300 mg. of cortisone before bilateral adrenalectomy often do not require the administration of hydrocortisone during the operation or recovery period. However, in patients inadequately prepared the value of hydrocortisone in cases of hypotension occurring during this operation has been well documented.<sup>4</sup> The use of hydrocortisone in patients who have failed to respond adequately from anesthesia especially with associated respiratory depression or hypotension has no clear rationale. However, it is known that patients who have adrenal cortical insufficiency respond poorly to stress and this may be a manifestation of this condition in patients who have been subjected to the stress of anesthesia and operation. Similarly patients who have a history of previous anesthesia difficulties usually manifested by prolonged awakening time or prolonged hypotension can be aided by the pre-operative administration of cortisone and the intra-operative or recovery room administration of hydrocortisone if the conditions warrant it. One of our cases who had considerably difficulty with previous anesthetics was found on the pre-operative visit to have the signs and symptoms of early Addison's Disease. Adequate adrenal cortical replacement enabled this patient to undergo operation and surgery for the first time in her life without a stormy post-operative course. Patients who have had many operations in the recent past often are benefited by the administration of adrenal cortical hormones. Certainly the possibility of chronic adrenal exhaustion in these patients is not unlikely. The problem of the patient with iatrogenic adrenal cortical insufficiency has become a real one in the last few years. Today many patients are receiving cortisone or its analogues for asthma, rheumatoid arthritis, and other conditions. The period of discontinuance of the cortisone therapy which will lead to anesthetic difficulties has not been determined. In our experience it has occurred in patients who had received long courses of cortisone which had been discontinued as much as four months previously. In patients with this history particular care should be given to administer hydrocortisone during the operation or in the post-operative period if unexplained hypotension or respiratory depression occurs. The development

of adrenal cortical insufficiency in extremely apprehensive patients who may have subjected themselves to continuing worry for this period of time has occurred often enough for us to be alert for the development of signs of adrenal cortical insufficiency in these patients during operative procedures.

Anxiety can cause the release of large amounts of epinephrine. The stimulation of the pituitary by the circulating epinephrine may lead to adrenal cortical discharge. This could in time cause adrenal cortical insufficiency. Anesthesiologists and surgeons are familiar with the patient who pre-operatively declares he is going to die during the operation. Although this seldom occurs the patients do exhibit severe and often prolonged hypotension during anesthesia. The use of hydrocortisone in these cases should be considered.

While the uses of hydrocortisone during anesthesia have been quite beneficial abuses have occurred. Often hydrocortisone is given indiscriminately for hypotension without a previous evaluation of the causes of the hypotension, whether it be blood volume deficit or vasodilatation. Hydrocortisone therapy should be reserved for patients who have responded neither to vasopressors nor blood replacement. The potential danger of intestinal perforation from the administration of hydrocortisone, which may be needless, is considerable. The adrenal cortical depression which may occur after only 100 mg. of hydrocortisone may be significant in the post-operative period if further cortisone therapy is not continued.

### Summary

The use of hydrocortisone and other adrenal cortical hormones as an adjunct to the treatment of hypotension, respiratory depression, and prolonged awakening time from anesthesia during and after surgical operations has been discussed.

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From the Division of Anesthesiology, Memorial Center for Cancer and Allied Diseases, New York City, New York.

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## ELECTROCARDIOGRAM OF THE MONTH

### HYPERPOTASSEMIA (HYPERKALEMIA)

DALE GROOM, M. D.

Charleston, S. C.

*Case Record*—On admission to the hospital for treatment of acute pulmonary edema, a 67 year old man with advanced hypertension was found to have a low level of potassium in the blood—8.8 mg. per 100 ml. of serum. Potassium chloride was ordered in a continuing oral dosage of 2 gm. four times a day. The patient was digitalized and showed prompt improvement with the usual therapy for congestive failure. Although urinalysis revealed a moderate albuminuria and microscopic hematuria, a blood urea nitrogen determination was within normal limits and the renal status was considered to be reasonably good. The electrocardiogram on the left side of the illustration is typical of several taken during his first week of hospitalization.

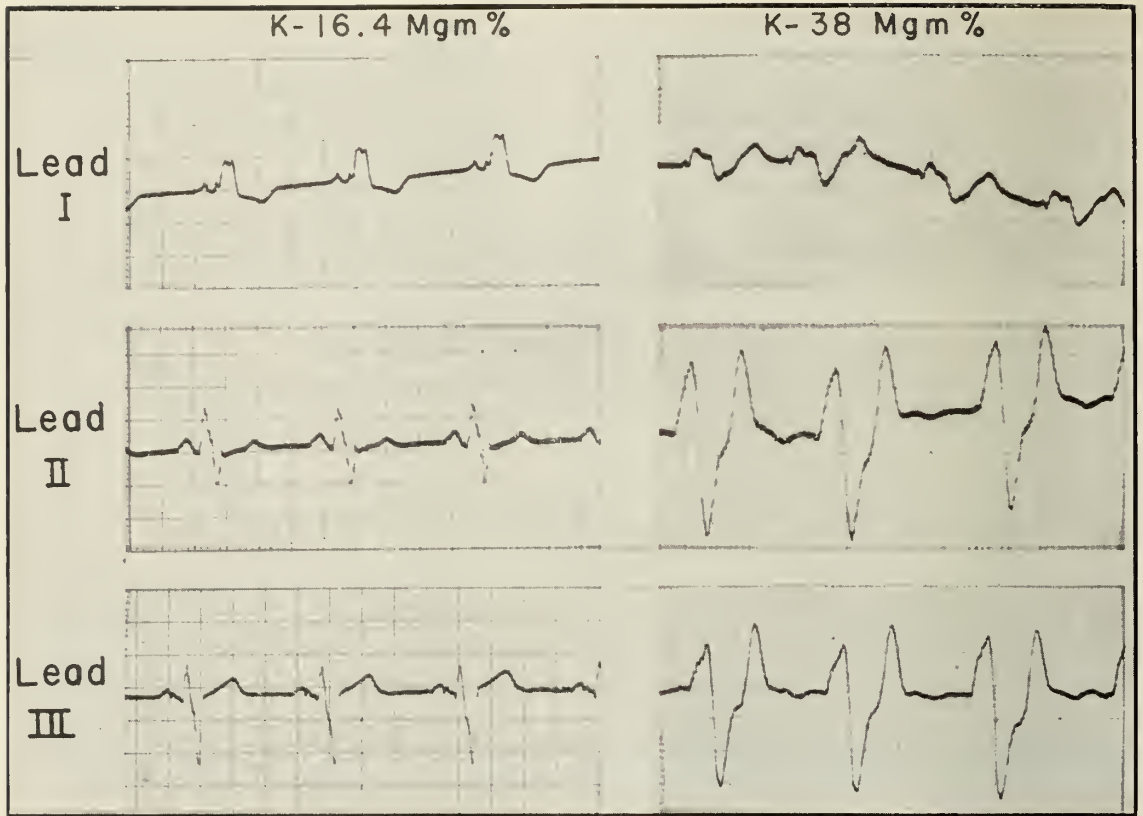
During the second week the patient became somewhat confused mentally and manifested a persistent pulse irregularity. When his electrocardiogram was observed to have changed remarkably as shown in the tracing on the right a serum potassium determination was obtained and found to be greatly elevated to 38 mg. (Concomitantly there had been a moderate increase in the blood urea nitrogen from 15 to 31 mg., with the serum sodium level decreasing from 380 to 300 mg. since admission). The potassium chloride was immediately discontinued and the patient treated with intravenous saline and dextrose solutions and insulin.

From the Department of Medicine, Medical College of S. C.

With restoration of electrolyte equilibrium the electrocardiogram was observed on the following day to have reverted to its previous form, and no further changes appeared in subsequent tracings. When dismissed from the hospital the patient was essentially asymptomatic.

*Electrocardiogram*—The tracing on the left side of the illustration, taken four days after admission, shows a straightforward left bundle branch block with typical slurring and notching of the QRS complexes which measure 0.14 sec. in duration. As is usual in this type of conduction defect the T waves tend to be opposite in direction from the main deflection of the QRS, best illustrated in leads I and III. The Q-T interval of 0.40 sec. is about at the upper limit of normal for men with this heart rate of 70. There is a regular sinus rhythm with prominent P waves which show some notching in lead III, and a normal P-R interval of 0.14 sec.

Shown on the right side are the same electrocardiographic leads with the potassium level at 38 mg. (9.7 millicivalents per liter). The rhythm has become irregular, intervals between beats corresponding to rates of about 60 to 100. P waves are now absent. The T waves and QRS complexes appear to have fused to form large biphasic deflections of considerably higher voltage than in previous tracings. It appears in leads II and III that the QRS may be of about 0.24 sec. duration with a markedly depressed S-T segment and high peaked T wave, although the



component waves are difficult to identify with certainty. The Q-T interval has increased to 0.48 sec. due to the extreme spreading of the QRS complexes. To the bundle branch block, presumably, has been added an intraventricular block. Frequent ectopic beats from several ventricular foci were observed in other leads and other tracings on this patient.

*Discussion*—An interesting and relatively new chapter in electrocardiography is that pertaining to electrolyte abnormalities. The ECG is often highly useful in uncovering an electrolyte imbalance for it is a test which is simple and easy to obtain and yields immediate results. Alterations in serum potassium either above or below its normal range of approximately 16 to 22 mg. 100 ml. (4.1 to 5.6 milliequivalents per liter) produce recognizable changes in the electrocardiogram. To some extent these changes are quantitative in that they tend to appear in a sequence as the potassium level rises above normal.

Generally, the following progression takes place. With minimal elevations of K there is an

increase in amplitude and decrease in width of T waves, producing a characteristic peaked contour. An opposite effect is said to occur in the P waves which tend to become of decreased amplitude and greater width. As the level approaches 9 to 10 mEq. the P waves disappear completely due to auricular standstill. There may be depression of S-T segments, and an intraventricular block of increasingly higher grade causes a spreading of the QRS complexes to the degree that they may become almost unrecognizable. At this point there is a prolongation of the Q-T interval as in hypopotassemia, the difference being that in the latter condition there is no associated intraventricular block. Various ventricular arrhythmias also occur, often with frequent ectopic beats. T waves appear to fuse into the QRS complexes as illustrated here. Still higher potassium levels produce complete cardiac standstill which is said to occur in the range of 12 to 14 mEq. It is significant that in this patient the serum sodium level was abnormally low, a situation which tends to accentuate the affects of hyperpotassemia.

Appreciable elevations of serum potassium are rare in the presence of normal kidney function. Liberation of large quantities of K by extensive tissue breakdown such as occurs in burns, starvation, or hemolytic crises may tax the kidneys' ability to excrete this ion as, of course, does administration of excessive quantities of K. Though not an excessive dose for replacement, and probably not too much for an adult with normal renal function to tolerate, the

*Familial Non-hemolytic Icterus.* Baroody, Waddy G., and Shugart, Richard T. *Am. J. Med.* 20:314 Feb. 1956.

Familial non-hemolytic icterus is a distinct clinical entity which probably occurs more frequently than is recognized. The patients exhibiting this syndrome will be found to have a hyperbilirubinemia, resulting from elevation of the indirect portion of the serum bilirubin. There is no anemia, no evidence of abnormal hemolysis, or liver function abnormality.

Clinically, these individuals are asymptomatic, although a fluctuating degree of icterus occurs which seems unrelated to activity, diet, infection or age.

This report deals in detail with a 19 year old Caucasian male who was referred because of jaundice noted by his associates. He showed clinical icterus without other physical defects. Laboratory studies were normal. The indirect component of the serum bilirubin was elevated. Liver function was normal as evaluated by cephalin flocculation, thymol turbidity, BSP excretion, alkaline phosphatase, and prothrombin time. Erythrocyte survival time (radiochromium technique) was within normal limits. Bilirubin tolerance test revealed pronounced delay in bilirubin clearance. Several members of the patient's family seemed to be involved by virtue of a history of fluctuating jaundice. Charts are included of the data collected on members of three generations of this family. All of the involved persons have been in good health and have continued to be well and active.

The mechanism responsible for the hyperbilirubinemia is thought to be a physiological defect of the liver cell membrane resulting in impaired clearance of serum bilirubin. The familial occurrence is thought to be transmitted by either sex as a mendelian dominant.

The prognosis in familial non-hemolytic icterus is excellent. It is important therefore that it be dis-

KCl given to this patient was inadvertently continued far beyond the period of replacement. The hypertensive kidneys' inability to excrete the excess potassium was manifested in the marked hyperkalemia, disclosing impairment of renal function which was not evident from the usual blood urea nitrogen determination. Initial clue of this electrolyte disturbance was provided by the electrocardiogram.

tinguished from more detrimental diseases such as chronic hepatitis and chronic hemolytic anemia.

*Cancer Charlatanism*, by Charles E. Horton, Hugh H. Crawford, Carter P. Maguire, Nicholas G. Georgiade and Kenneth L. Pickrell. (*South. M.J.* 49:567-574, June 1956)

Although doctors have long known about the damage done by quack cancer cures, they often lack specific clinical evidence to back them up. This evidence is produced in this article when case histories of 64 men and women are presented. These patients had first been treated by cancer quacks and then, uncured, had gone to Duke Hospital for curative treatment. Of the 64 patients studied in this series, 10 probably never had cancer, 27 had cancer but suffered unnecessarily in pain and mutilation because of the cancer quack treatment and, finally, 27 died because, by the time they were seen, their cancers had reached the inoperable stage. This article is liberally supplied with many stark photographs showing the appearance of many of these patients on their arrival.

The various remedies used by the cancer quacks are listed and the receipt given for each. These receipts are treasured family secrets and are passed on from one generation to the next only after a strict vow of secrecy is taken by the relative. We were able to extract this receipt from a cancer quack only when he realized that he was about to die, and after we had promised him that it would be used as part of a medical write-up of cancer.

Even though we realize that cancer charlatans have no scientific basis for the approach to their so called cancer cures, we certainly have a duty to investigate each and every new professed cure for cancer, even though it originates in a backwoods cabin.



# CONGENITAL SOLITARY PELVIC KIDNEY: Report of a Case.

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Congenital solitary pelvic kidney is a rare condition. Stevens, in 1937, collected 25 cases from the literature, added 2 cases of his own and established a pattern for subsequent reporting of these cases. Beneventi, in 1950, reviewed the 43 cases that he found in the literature and added a case of his own. Borrell and Fernstrom, in 1954, found 22 additional cases and made an extensive study of the blood supply of the kidney, by means of aortography, in a case of their own. Associated genital lesions were the common observations in all adequately reported female patients; in the male, associated genital lesions were far less common.

This paper adds an additional case to the literature.

## Case report

A sixteen year old white girl was referred by an internist for urological study because of hypertension and pyuria, and was first admitted to hospital on October 13, 1954. There was no further pertinent history except for frequent tonsillitis. Menstrual history was not unusual except for severe menstrual cramps. She was of medium stocky build, pale and acutely ill, but with no gross deformities. An irregular mass, the size of a normal kidney, was easily palpated in the left lower quadrant. The admission blood pressure was 160/110, but during her stay in the hospital it was to range from 80/45 to 160/110 without apparent cause and with a mild tendency toward hypertension. Her admission urinalysis showed a two plus albumen and 60-70 white blood cells in each high power field. The admission blood urea was 85.6 mg. per 100 ml. and the blood sugar was 110 mg. The hemoglobin was 90 percent and the white blood count 7800, with a normal differential count. Cystoscopy on the day following admission showed a normal vaginal external genitalia. The bladder showed moderate chronic inflammatory changes and there was an absence of the trigone in the true sense. The left ureteral orifice was found unusually far back and high on the bladder wall. The right ureteral orifice could not be found. Retrograde pyelograms showed such an unusual and bizarre pattern that they could not be interpreted. Intravenous pyelograms were done, but it was only in the two hour film that evidence of function could be seen, with the production of a nephrogram and with enough dye in the bladder to demonstrate the

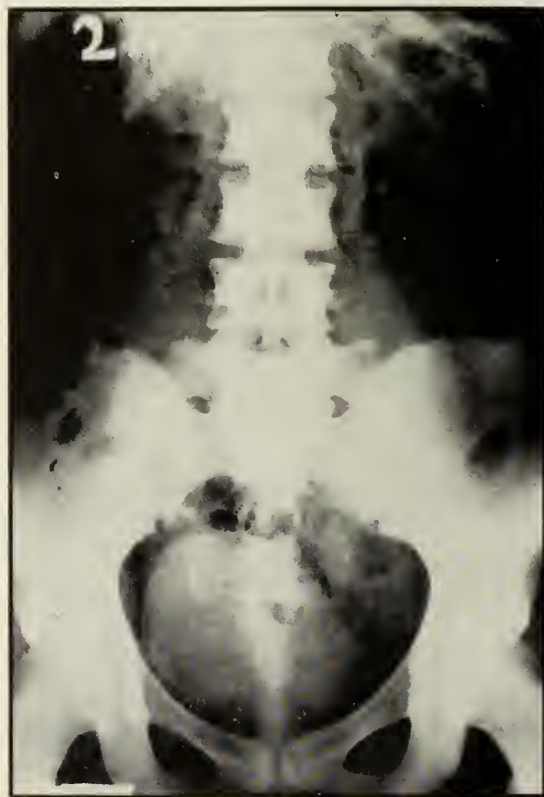


Figure 1

*Film taken two hours after injection of the dye and showing a nephrogram and pressure on bladder pole of the kidney.*

deformity of the left bladder wall by the kidney. (Figure 1). A week later, retrograde pyelograms were more successful and a diagnosis of congenital solitary pelvic kidney was made. (Figure 2 and 3A.)

On the ninth day after admission exploratory surgery was carried out through a left paramedian incision. There was an absence of the right ovary, right fallopian tube, broad ligament, round ligament, and the right cornu of the uterus. No kidney could be palpated on the right and the left ovary contained a cyst one cm. in diameter. The appendix and ovarian cyst were removed. The posterior peritoneum was opened lateral to the colon. Together with the fatty and connective tissue it was densely adherent to the kidney and was cleared away with difficulty. A very primitive kidney, with pronounced fetal lobulations and with the superior pole lying just above the level



Figure 2  
*Retrograde pyeloureterogram*

of the bifurcation of the aorta, was now exposed. All arteries were not traced, but each separate segment or lobulation of the kidney apparently derived its blood supply from an artery arising from the nearest large artery including the aorta, common iliac, internal and external iliac arteries. Each group of minor calices was capped by a mass of parenchyma almost completely separate from the adjacent segment and attached by what appeared to be fibrous connective tissue containing little, if any, kidney substance. The pelvis was greatly elongated, tube-like and extrarenal. (Figure 3 B.)

Recovery from surgery was uneventful and she was discharged on the eighth post-operative day. The urine had cleared under antibiotic therapy and, although the blood urea had risen to 106 mg. a week after her admission, it was 81 mg. at the time of her discharge from the hospital.

The patient lived a considerable distance away and came in only occasionally for check-ups during the following year. She showed a mild urinary tract infection that responded well to antibiotic therapy.

On October 18, 1955, she was readmitted to the hospital with a ten day history of emesis, dysuria, chills, fever and hematuria. She had been under treatment by her family physician for an urinary tract infection. Increasing drowsiness and inability to take and retain food caused him to refer her back to us. She was semicomatose on admission, with moderate edema

of the face and hands, pronounced air hunger, and with a blood pressure of 110/70. Her admission blood urea was 218 mg. The admission urine had 1.010 specific gravity and contained two plus albumen and innumerable white and red blood cells in each high powered field. The white blood count was 21,000 and the hemoglobin 74%. Acidosis was combatted with soda bicarbonate by mouth and intravenous fluids that included 1/6 molar lactate. Intramuscular antibiotics were given to control the urinary tract infection. There was good and progressive improvement, but on the eighth hospital day she rapidly returned to a comatose state and died. On neither admission did she run more than a degree or two of fever. Autopsy was denied.

#### Discussion:

It would seem reasonable to suppose that the deficiency on the right occurred early enough in embryonic life to affect both the genital and urinary portions of the primitive urogenital ridge. The deficiencies in this case seemed to follow a more precise pattern than has been true in some of the reported cases. On the left, the deficiency seems to have been confined to the urinary tract with arrest at a moderately early stage of development. How this very primitive kidney was able to grow and support life, is most remarkable. The labile blood pressure is not easy to explain. The adrenal was not found in the vicinity of the left kidney.

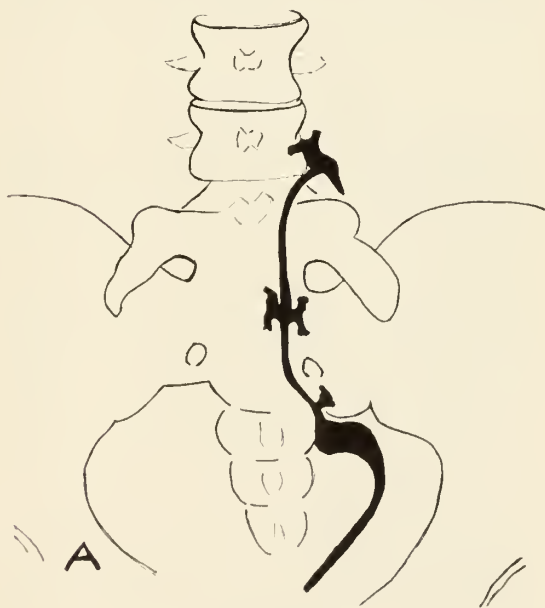


Figure 3  
A—Schematic representation of the findings gained from studying retrograde pyelograms under varying degrees of filling and at different exposures.

Shortly before this patient's death, I operated on her mother for what appeared to be a stone in the ureteropelvic junction of the right kidney. Exposing what I thought to be the upper part of the ureter, I opened the structure, and encountering no blood or urine, attempted to catheterize this tube without success. Following this structure upward, it was found to cross the ureteropelvic junction and to enter the lower pole of the kidney. It was then followed distally and was found to enter the mid portion of the vena cava. I resected the structure and the pathological report showed an unusually thick walled obliterated vein. The upper ureter was cork screw in appearance and wrapped itself around fibrous bands and was of small caliber. While not as extensive as in her daughter's case, this too represented an unusual anomaly.

### Summary

This is a case report of a 16 year old white girl with a congenital solitary pelvic kidney of a very primitive type with marked fetal lobulations and extrarenal pelvis. The right ureter was apparently absent and the trigone deformed. Associated genital anomalies included absence of the right ovary, fallopian tube, broad ligament, round ligament, and right cornu of the uterus. The patient suffered from chronic urinary tract infection and died a year after the

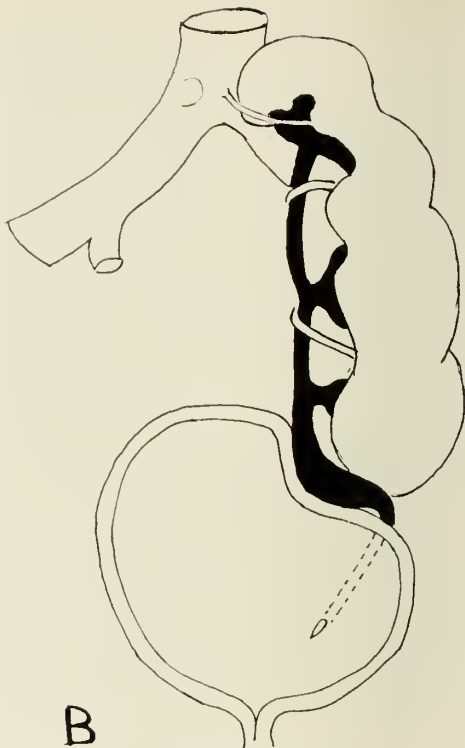


Figure 3  
B—Schematic representation of findings at operation.

diagnosis had been made. She had a very labile blood pressure. Her mother had an anomaly of the right urinary tract.

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# CERVICAL PREGNANCY

## A CASE REPORT

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Cervical pregnancy is a rare occurrence. A search of the currently used standard textbooks reveals that it is given either scant or no attention. Since 1900 only 45 documented cases have been reported, and of these only 20 have a pathological diagnosis as a confirmation. Most of those reported are of the usual variety; that is, the growth and development of the conceptus within the cervical canal. The present case represents a variation in the usual form of cervical pregnancy and is therefore considered sufficiently interesting to report.

A white woman, age 29, Grav. III, Para. II, Abor. I, was admitted to St. Francis Xavier Hospital June 4, 1946. She was in profound shock, to the point of unconsciousness—blood pressure 60/40, pulse so rapid and thready as to be immeasurable as to rate. The other characteristics of shock from hemorrhage were all present in full measure. The patient was unable to furnish any history, but the husband stated that the last menstrual period had been six weeks ago. Around the next expected period, which was May 5, she had seen some dark brown vaginal discharge, which had responded to bed rest and some mild sedation. At this time she had been examined by her physician and a diagnosis of pregnancy had been confirmed. She was told that everything was normal and a vaginal estimation had also been done at this time. There was no further difficulty until May 25, at what was estimated to be the sixth week of pregnancy. At this time the patient had brisk vaginal bleeding and severe abdominal cramps and weakness. She was seen at home by her physician and given medications (Progesterone, mg 10, and Demerol mg 50); no examination of the birth canal was done. She remained at bed-rest, but the bleeding continued. About five days of moderate vaginal bleeding, passage of clots, and the ingestion of pills went on. The few hours prior to admission were said to be filled with pain, and passage of enormous blood clots *per vaginam*. When I saw the patient in the profound shock, with copious vaginal bleeding as noted above, I gave transfusions of whole blood in quantities; and as soon as a B.P. of 80 mm was reached, and the pulse was slow enough to count, we proceeded to the operating room for estimation of the cause of the hemorrhage. It was my feeling that this was simply an incomplete abortion.

With blood running in veins of both arms, and with very little nitrous oxide, we put the patient in lithotomy position. There were clots in the vagina

estimated to be of at least 500 ml. of blood. These were removed. The cervix was edematous, cyanotic, and swollen. There in front of us on the portio vaginalis of the cervix, at about "8 o'clock," was a fern-like tuft of blood, resembling an organized clot, about 4 cm in diameter, flattened out and sac-like, with actual membranous component. I thought this was some sort of Nabothian cystic mass, and I began to wonder, from its contused and cyanotic look, whether the abortion had been of the produced or induced variety. The cervical os was tightly closed, the uterus was somewhat boggy, symmetrical and fixed anteriorly. The cul-de-sac was clear and there were no adnexal masses palpable. The cervical os was dilated and the endometrial cavity was found to be normal in depth and regular in outline. A medium sized sharp curette was passed, and a few fragments of somewhat thickened endometrium were obtained. There was no evidence of any decidual or fetal-like structures obtained from within the uterus. When the cervical mass described above was removed it left upon the structure of the cervix, a bed, as if one had cleaned down high granulations. Oozing continued from this area. We thought of touching it with the actual cautery for hemostasis, but a tight vaginal pack which we inserted for 10 minutes and then removed to observe the amount of bleeding, was sufficient to control the bleeding. This was reinserted. The postoperative course was uneventful and the patient was discharged on the fourth postoperative day.

The pathological diagnosis from the mass of tissue removed from the area on the cervix described above, was confirmatory of pregnancy. The report was that of decidual tissue and chorionic villi. The material obtained by curettage showed only decidual but no evidence of fetal structures.

The past history of this patient indicates that in 1944, about one and a half years prior to the present illness, she had had dilatation and curettage, cauterization of the cervix (repair of cervical lacerations, method not described), and a Gilliam uterine suspension. Otherwise her past history was negative.

I have not seen this patient since her two weeks postoperative visit, but communications from a physician in Little Rock, Arkansas, reveal that she has had a "Pelvic Clean-out", reasons not given, except that of pelvic pathology. Even this source of information about the patient at this time has not been fruitful.

## COMMENT

At the time this patient was seen; that is, in the operating room, I must hasten to say that

Dr. James Wilson suggested, along with other possible causes, the matter of cervical pregnancy. Since he did not record his wild guess, I can only say the pathologist was the accurate diagnostician. It is interesting to remember and recall the important fact that all cases of bleeding following amenorrhea are not simply abortions of one or other variety, to be managed by 'phone directions, or pills and anodynes. Any woman who has vaginal bleeding following amenorrhea, especially where pregnancy is known or suspected, should have a complete evaluation of the amount of bleeding. The tissue, if passed, should be examined and the cause of the bleeding and its extent should be determined by a complete examination. Most important of all, a vaginal inspection and palpation should be done. Management of bleeding in any trimester of pregnancy is a challenge, no less in the first trimester than the last. Had this patient been properly evaluated at the time of the first episode of spotting, the hemorrhage which very nearly cost her her life would have been avoided.

Cervical pregnancy is admittedly a rare complication of pregnancy. It results from the nidation and growth of the conceptus in the structure of the cervix. It is not isthmico-cervical pregnancy, discovered and described by Ahfeld



and Aschoff; in this latter case one finds a low implantation of the conceptus, with a placenta- praevia and extension down into the cervix. True, the corpus does not enlarge in this variety either, but a part of the uterus acts as the point of development and growth. The case that is presented seems unique insofar as the nidation and growth was all upon the cervix, well away from the actual os, and demonstrably implanted upon and growing upon this structure as was proven at the time of removal of the mass from its point of fixation, with the underlying bed grossly like a nest.

Read before South Carolina Obstetrical and Gynecological Association at meeting held March 17 and 18, 1956, Clemson, S. C.

*Meconium Peritonitis Associated With Fibrocystic Disease Of The Pancreas.* Milton Weinberg, and J. R. Paul, Jr., Charleston. A.M.A. Arch. Surgery, 72, 688-690, (April 1956)

There is presented a case of an infant who at 5 days of age showed symptoms of intestinal obstruction. A roentgenogram of the abdomen and a barium enema showed dilated loops of intestine, complete obstruction at the splenic flexure of the colon and scattered bits of opaque (calcified) deposits throughout the area of the peritoneal cavity.

The infant was explored and found to have meconium deposits in the peritoneal cavity, some of which were quite large, and all of which were gritty in consistency and undergoing calcification. There was free fluid and intense inflammatory reaction as well. Adhesions had caused multiple points of obstruction of the gut.

All visible meconium deposits were removed. Adhesions were separated, and the peritoneum was lavaged. Careful inspection failed to reveal a perfora-

tion of the bowel. Cultures were negative. The wound was closed and the child was treated with antibiotics and cortisone for 12 days. Recovery was surprisingly uneventful.

Rales were noted in the lungs and the patient had a persistent cough from three weeks of age. At one month tests were done which revealed complete absence of trypsin and lipase in the duodenal secretions. The child has subsequently had a very stormy course, characteristic of pancreatic fibrosis. He has not had any recurrence of symptoms suggesting intestinal obstruction or adhesions. The authors discuss the pathogenesis of this condition, specifically the fact that spontaneous perforation of the intestine occurs before birth with passage of inspissated meconium into the peritoneum and then with subsequent healing of the perforation.

The literature is reviewed. Several cases similar to this one have been reported—at least two of which have survived, but with the same long term difficulties incident to pancreatic fibrosis.



# POLYETHELENE TUBE REPLACEMENT OF GANGRENOUS THORACIC STOMACH

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There have been dramatic developments in advancement in surgery of the esophagus during the past ten years. Numerous methods have been devised in re-establishing esophageal continuity following surgery for esophageal diseases. Although the end results of surgical treatment of cancer of the esophagus has been disappointing, the surgical management of these cases has demonstrated that resection of the esophagus can be done safely and with good functional results, and thus the surgical approach can now be applied to benign conditions, such as the distressing disease of caustic strictures of the esophagus. Of all the various methods devised to re-establish esophageal continuity, the most widely accepted procedure consists in bringing the stomach into the thorax for anastomosis to the proximal end of the esophagus. Burford *et al*<sup>1</sup> recently reported 17 cases of esophageal resection for caustic strictures with no deaths and no complications. In spite of the development of modern surgical techniques and surgical management, there will be occasional unfortunate complications that may result in poor functional results or death.

Berman<sup>2-3</sup> has reported the use of polyethylene tube as a replacement for the resected portion of the esophagus to re-establish esophageal continuity. In his report the use of the polyethylene tube was confined to cases with carcinoma of the esophagus. This writer has utilized the Berman polyethylene tube in esophageal cancer with disappointing results, but it should be stated that all of the patients in whom the polyethylene tube was used were by present standards, inoperable and incurable. At the present time no evaluation of the use of polyethylene tube replacements in benign esophageal diseases has been determined. The case to be reported serves only to demonstrate that the polyethylene tube can be utilized in a surgical emergency for a serious postoperative complication in resection of the esophagus.



Figure 1

Barium study about nine months post-operative.

Case #85219, Columbia Hospital. This 48 year old white male was admitted to the hospital on January 2, 1954 with a history of ingestion of battery acid in November, 1945. Treatment at that time consisted of ineffective efforts to dilate the esophagus and finally gastrostomy was done in December, 1945. The patient had maintained himself on gastric feedings for the past eight years and complete atresia of the esophagus had developed. A right thoracotomy combined with a laparotomy was done with resection of the esophagus and transferring the stomach into the right side of the thorax with anastomosis of the proximal esophagus and the stomach just below the level of the thoracic inlet. The patient made a satisfactory post-operative recovery and was on a semi-soft diet and ambulatory about the ward. On the 14th postoperative day the patient developed acute, severe pain in the right side of the chest and upper abdomen, accompanied by rapid pulse, cold sweats and other evidence of shock. Portable x-ray examination of the chest demonstrated a hydropneumothorax which had not been present on a routine roentgenogram of the chest

made on the previous day. It was the clinical opinion that the patient had a perforation or breakdown of the gastro-esophageal anastomosis, and the condition of the patient was rapidly deteriorating. A thoracotomy through the previous incision was done. The stomach was completely necrotic and the pleural space was filled with gastric contents. The anastomotic site appeared to be intact and it was believed that obstruction of the gastric blood supply had occurred, resulting in necrosis of the major portion of the stomach. Only the antral portion of the stomach appeared to have adequate blood supply. The remainder of the necrotic and gangrenous stomach was resected, thus leaving a large defect, and further anastomosis was impossible. An 8 in. Berman polyethylene tube was used to bridge the gap between the proximal end of the esophagus and the antral portion of the stomach, and the operative incision was closed, leaving multiple drainage tubes in place. The patient had a critical postoperative course but slowly began to improve and several days later a jejunostomy was done to permit feedings. The patient was maintained on jejunostomy feedings for about three months, at which time the drainage from

the empyema and mediastinitis almost ceased and there was no evidence of further leakage about the polyethylene tube. Oral feedings were begun at this time and gradually increased with the patient maintaining himself entirely on oral feedings after about four months. The right lung gradually re-expanded and all drainage had ceased after six months. Eight months after operation the patient appeared to be in satisfactory condition and resumed his work as a foreman in a lumber plant. Twenty-four months after operation the patient appeared to be in good condition and has maintained his nutritional status without difficulty on soft foods and a general bland diet.

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*Congenital Cystic Dilatation of the Common Bile Duct*—William C. Cantey, Columbia. (*Ann. Surg.* 143:608-618, May 1956)

Cystic dilatation of the common bile duct is considered to be an idiopathic congenital lesion involving a segment of the duct above the duodenum. There are many hypotheses and explanations given for its origin and, in general, it appears that there is a congenital weakness of the duct wall, and the duct dilates with or without increased intra-duetal pressure. It is a relatively rare condition occurring most often in female children and to date there have been approximately 216 cases reported in the reviewed literature. There may be no symptoms until the cyst begins to enlarge and then the triad of a right upper quadrant mass, pain and jaundice usually occurs. The treatment is surgical and the operation of choice is probably a simple anastomosis of the cyst to the duodenum (choledochocysto-duodenostomy). Opinions differ and many feel that a Roux-Y anastomosis to the jejunum with or without excision of the cyst is the best procedure. In the case reported, the cyst was excised and the common hepatic duct anastomosed to

the duodenum (hepatico-duodenostomy).

The case report concerns a three year old colored child who is now apparently well after operation. The notable facts in the case were the presence of a right sided, mid-abdominal tumor, pain and moderate jaundice. The cyst contained 600 ml. of bile colored fluid.

*Clinical Evaluation of Topical Fludrocortisone*—John van de Erve, Jr., (Charleston.)

A. M. A. *Archives of Dermatology* 74: (July 1956.) pp. 92-94.

In a clinical study of 335 cases of dermatitis it was found that

1. Fludrocortisone in ointment and lotion forms proved equal in clinical efficacy to hydrocortisone in 1/10 the concentration.
2. Both preparations were most efficient in dry erythematous forms of dermatitis and much less so in wet dermatoses.
3. No cases of contact sensitization were encountered.



# MECKEL'S DIVERTICULUM IN A CASE OF SITUS INVERSUS

## PREOPERATIVE RADIOGRAPHIC DEMONSTRATION

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**A**lthough a Meckel's diverticulum is found in 2 to 3% of all autopsies, radiographic demonstration of the anomaly has been rarely achieved. Case<sup>1</sup> succeeded in showing the first one by x-ray in 1926, but Golden<sup>2</sup> states that he has never been able to demonstrate the lesion before operation. Gross<sup>3</sup> believes that x-ray examinations are practically useless in showing a Meckel's diverticulum. He has abandoned radiography as a means of visualizing this congenital aberration. Of 100 cases reviewed by Michel and his group<sup>4</sup>, only one diverticulum was shown on barium examination of the gastrointestinal tract. It is apparent that the identification of a Meckel's diverticulum preoperatively is sufficiently unusual that case reports have been warranted. Sloan and associates<sup>5</sup> searched the literature in 1954 and found only 22 cases reported in which an analysis could be made. Since that time, reports of isolated cases in which x-ray showed the pouch before operation have appeared in the literature. In none of these has situs inversus been an associated anomaly. An instance of such association is the basis of this report.

### Case report

A white male, 10 years of age, was admitted to the hospital on September 24, 1955. He complained of pain in the right lower quadrant of the abdomen which had begun approximately one hour before admission. The pain was severe, cramping, and did not radiate. No nausea or vomiting had been experienced. There had been no bowel movement since the onset of the pain. No change in bowel habits had occurred and no bloody or tarry stools had ever been observed. Urinary symptoms could not be elicited.

The patient had had a previous episode of similar pain in the right lower quadrant about a year prior to this episode. That attack had subsided spontaneously within a few hours and the patient had been asymptomatic in the interim. At the age of 4 years, he had sustained fractures of the left arm and knee

when struck by a car, but no residual deformity was evident. A review of systems revealed that the mother had been told by a physician that the child's heart was on the right.

The patient was well-nourished and well-developed for his age of 10 years. The point of maximum intensity of the heart beat was in the right fifth intercostal space, in the mid-clavicular line. The abdomen was flat, but was held tight by voluntary muscle guarding without true rigidity. There was moderate tenderness and rebound tenderness in the right lower abdominal quadrant alone. No organs or masses could be felt in the abdomen. The peristaltic sounds were hypoactive. Rectal examination was valueless due to a lack of cooperation, but the stool obtained was normal in color. The remainder of the physical examination was normal.

The admitting diagnosis was "possible acute appendicitis". A blood count showed a hemoglobin of 13 gm., red cells to be 4.4 million per cmm., white cells to be 10,000 per cmm. with 83% polymorphonuclear leukocytes and 17% lymphocytes. A urinalysis showed



Figure 1

*The heart is seen on the right and the stomach is shown by barium study to be on the right.*

\*From the Saint Francis Xavier Hospital, Charleston, South Carolina

no abnormality. The finding of dextrocardia presented the question of whether the remaining of the viscera were transposed and specifically, whether the appendix was on the left. A chest roentgenogram confirmed the presence of dextrocardia (fig. 1). A scout film of the abdomen and a partially completed barium enema showed the presence of situs inversus.

Soon after the barium enema was given, the abdominal pain disappeared completely, about 2 hours after its onset. The tenderness and rebound tenderness in the right lower abdominal quadrant regressed. The possibility that the patient may have had a volvulus of the sigmoid colon relieved by the barium enema was considered. However, there was no suggestion of such a lesion from the roentgenograms. Since the barium did not progress through the transverse colon, an intussusception reduced by the enema was excluded. The patient was observed for the next 24 hours. Since he continued free of pain and the physical examination remained normal, he was discharged from the hospital on September 25, 1955.

The boy was seen as an outpatient the following day and the findings were unchanged. However, on the second day after his hospital discharge, he was reexamined after the sudden onset of severe pain in the right lower abdominal quadrant. The pain had begun half an hour before the examination. It was identical with the pain he had experienced 3 days earlier. Physical examination again showed moderate tenderness and rebound tenderness in the right lower quadrant. The blood count was similar to the previous one, except that the white cells were 6,500 per cmm. An analysis showed the urine to be again normal. One hour after admission, the pain again disappeared without medication. The abdominal tenderness and rebound tenderness diminished, but continued present to a mild degree. Further investigation of the possible cause was conducted.



Figure 2

*Evacuation film after barium enema shows the Meckel's diverticulum of the ileum (double arrow) and the filled appendix (single arrow).*

A barium enema filled the colon readily to the cecum (fig. 2). The colon showed no abnormality except for situs inversus. The appendix was seen in

the left iliac fossa, in a normal position relative to the cecum. Overflow into the terminal ileum outlined a pouch continuous with the lumen of the ileum. The pouch was 2 cm. in diameter and arose from the ileum about 15 cm. from the ileocecal junction. It was located over the true pelvis approximately 2 cm. to the left of the midline. It was felt that this pouch was a diverticulum of the ileum, probably a Meckel's diverticulum.

An upper gastro-intestinal series of roentgenograms showed a normal esophagus, stomach and duodenum except for situs inversus. However, progress films of the barium meal through the small bowel at intervals over a period of 5 hours showed again the diverticulum of the ileum (fig. 3). On this examination, it was somewhat smaller and more elongated. An intravenous pyelogram was reported as normal. Examinations of the stools failed to show blood or other abnormality.



Figure 3

*Demonstration of the Meckel's diverticulum on upper gastro-intestinal series at 5 hours after ingestion of barium. The diverticulum is encircled.*

Exploratory laparotomy was believed indicated for recurrent abdominal pain in the presence of a Meckel's diverticulum. Under general anesthesia, the abdomen was explored through a low, left paramedian incision. There was complete situs inversus — a mirror image of normal. The stomach was on the right and the liver on the left side of the peritoneal cavity. The duodenum curved to the right and the pancreas joined it to the left of the midline. The small bowel lay predominately in the left side of the abdomen. The ileum joined the cecum in the left iliac fossa. The colon ascended on the left to the hepatic area, crossed transversely to the right and reascended from the splenic area. The sigmoid was located in the right iliac fossa and had a very short mesentery. At 18 cm. from the ileocecal valve, there was a 6 x 2.5 x 2.5 cm. diverticulum of the ileum. The diverticulum had a wide mouth and did not have a mesentery. There was no gross abnormality of the diverticulum or of the adjacent ileum. The appendix appeared normal. All mesenteric lymph nodes were enlarged, up to 2 x 2 cm. in size, and hyperplastic in appearance. The diverticulum was obliquely excised at its base without compromising the

lumen of the bowel. The appendix was removed. The patient withstood the procedure well.

After the operation, his course was very satisfactory. He was taking liquids without difficulty on the second post-operative day and progressed rapidly to a full diet. Bowel movements occurred after the fourth day and they were normal in color and consistency. He quickly became ambulatory and his wound healed *per primam*. He was afebrile and asymptomatic at the time of his hospital discharge on October 5, 1955. He was last examined 8 months after the operation. He continued to be asymptomatic and physical examination remained normal except for the situs inversus.

The pathological sections of the diverticulum showed a well-formed fibromuscular wall lined by intestinal mucosa. Except for one focus, the mucosa of the diverticulum was of the gastric type. There was no evidence of either inflammatory involvement of the structure or ulceration of the focus of ileal mucosa. The appendix was essentially normal.

### COMMENT

The demonstration of this diverticulum by both barium enema and an upper gastrointestinal roentgenograms is of interest. Of the 22 cases analysed by Sloan and his group<sup>5</sup> in which a Meckel's diverticulum was shown by x-ray, only 2 cases were found on both types of gastrointestinal examinations. In Sloan's cases, hemorrhage was the outstanding symptom in the 14 cases which were clinically symptomatic. The high incidence of hemorrhage in the diverticula demonstrated by x-ray probably represents a greater attempt to show a bleeding site in patients who have gastro-intestinal hemorrhage. It would appear that one cannot argue with the viewpoint that roentgen demonstration of the lesion is so infrequent as to invalidate contrast x-ray studies in the investigation of the anomaly. However, it is believed that careful study of the terminal ileum by x-ray is worthwhile in younger people with melena. Lerner and his co-workers<sup>7</sup> have recently reported a new radiologic sign in Meckel's diverticulum. Their sign consists of the demonstration of an air-filled sac on the plain x-ray film of the abdomen in an instance of this anomaly. However, it would appear that the capture of air in the diverticulum on the incidental x-ray film is a fortuitous event that could hardly be relied upon in routine investigation.

The cause of the abdominal pain that prompted this patient to present himself was not clearly explained. An occasional patient with a Meckel's diverticulum may complain of

chronic abdominal pain, usually related to food intake. Dragstedt<sup>6</sup> has reported such a case. Acute abdominal pain, similar to this patient's pain, has been reported in the cases whose diverticula showed heterotopic gastric mucosa. This acute pain may occur in the absence of demonstrable ulceration of the adjacent ileal mucosa, exactly the findings in this boy's diverticulum. Sibley<sup>8</sup> has called this pain "dyspepsia Meckeli". It is thought that it represents pre-ulcerative inflammation. No such inflammation could be shown in this instance, but serial pathological sections of the diverticulum were not made. The occurrence of the abdominal pain in the right lower quadrant and the presence of the diverticulum in the left side of the abdomen tends to exclude the possibility of "dyspepsia Meckeli" in this patient. Chronic mesenteric lymphadenitis was present, but the symptoms that the patient experienced would be unusual for such a condition. The appendix and the remainder of the normal-appearing intraperitoneal organs offered no clue as to the source of the pain. Exploratory laparotomy seemed indicated in the presence of a Meckel's diverticulum in a patient with recurring, severe abdominal pain. Although no other cause for the abdominal pain was demonstrated, the period of post-operative observation has not been sufficiently long to ascertain that the pain had been alleviated by diverticulectomy.

The possibility of a complication in a diverticulum producing symptoms is readily apparent. The presence of heterotopic gastric mucosa in the diverticulum greatly increases the incidence of complications. Diseased diverticula contain heterotopic gastric mucosa four to five times more frequently than do those found incidentally during laparotomy or at autopsy.<sup>9</sup> Heterotopic gastric mucosa is found in as many as 20% of the diverticula which appear normal. Most authorities state that 25% of the diverticula are subject to complications. The diverticulum may ulcerate and cause massive hemorrhage. Inflammation of the anomaly may be a source of perforation in the area or leakage may be secondary to a perforated ulcer. Local, spreading, or generalized peritonitis will result from the perforation, or a fistula may be formed. The lesion may be the lead point of an intussusception that may require resection for strangulation in

a seriously ill patient. Infrequently, tumors are found in Meckel's diverticula.

Rohmer<sup>10</sup> has reported 3 cases in which complications occurred after previous laporatomies. One of Rohmer's cases had 4 prior abdominal operations. Wagner, Shallow, and Eger<sup>11</sup> recorded their mortality for elective removal of the diverticulum as zero, but the mortality for complications was 13%. It is apparent that surgeons, gynecologists, urologists, etc. should search the terminal 100 cm. of the ileum for this anomaly during every elective laporatomy. If found, the diverticulum should be removed as routinely as the appendix unless there are contraindications, such as peritoneal infection or poor condition of the patient.

SUMMARY

1. A case of situs inversus in which a Meckel's

diverticulum was demonstrated by both upper and lower gastrointestinal contrast x-ray studies is presented.

- 2. The possible causes of acute abdominal pain in a patient with a normal-appearing diverticulum and grossly normal intraperitoneal organs are discussed.
- 3. The incidence of complications in Meckel's diverticulum is generally stated at about 25%. Operative mortality for removal of the lesion when not diseased is almost nil.
- 4. It is believed that careful, interval study of the terminal ileum by x-ray is indicated in younger people with recurrent abdominal pain or with melena.
- 5. It is suggested that routine search for and removal of the anomaly be done in every laporatomy where no specific contraindication exists.

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MEDICINE—AN ART OR A TECHNOLOGY

Medicine is an art as well as a technology. The growth of science, applied in myriad ways in medicine, has made possible marvelous advances in the diagnosis, treatment, and prevention of disease. In this achievement, medicine in its educational program has turned more and more to science and has frequently neglected cultural subjects that contribute to the art and humanitarian facets of medical practice. With the return of medical schools to closer university association, this fault, which grew during their century-long separation from universities, is now slowly being corrected. A sound technology based on science is requisite to medical progress, but good efficient professional care includes the heart as well as the head. Multiple acquisitions of bits of applied sciences have created another difficulty by favoring the formation of many subspecialties, which are taken up by young

physicians before they have acquired by experience a broad foundation in clinical practice and a more mature judgment in dealing with human affairs and impulses. The picture of the patient himself is obscured by the shadow of a minor item administered by a technologist. Increase in scientific facts applicable to the problems of medicine has led to so great a multiplication of specialties and subspecialties that increasing numbers of physicians who are highly skilled in some difficult but relatively narrow special field have failed to acquire or appreciate the larger objectives of medicine in the care and cure of the sick patient. This trend toward surrender of a profession to a technology calls forth well-merited criticism of the medical profession, often expressed by the phrase "The passing of the family doctor."

Ernest E. Irons—*Federation Bulletin*





## PRESIDENT'S PAGE

The South Carolina Medical Association plays an important role in medical affairs in the state. Its actions reflect the opinions of those physicians who take an active part in its proceedings. In order to express one's views effectively it is necessary to be conversant with the plan of organization. For those not familiar with it, this brief outline is attempted. It is based upon the 1956 revision of the Constitution and By-Laws of the Medical Association of South Carolina.

The South Carolina Medical Association is a component part of the American Medical Association, at which meetings it is represented by two duly elected delegates. The State Association is composed of the various county societies which are represented at the meetings by delegates in proportion to their membership. The House of Delegates is the legislative body of the Association. Its regular meeting is at the time of the annual meeting of the Association.

The House of Delegates elects a councilor from each district, corresponding with the congressional districts. The councilors together with officers of the Association constitute the Council. The Council acts as the finance committee of the House of Delegates and serves as the executive committee of the Association between the regular meetings of the House of Delegates. It functions throughout the year, mainly through its chairman. The Council elects an executive secretary. This position is now held by Mr. M. L. Meadors, a lawyer in Florence. The executive secretary may be considered the business manager of the Association. Among other duties he keeps the records, arranges for meetings, keeps in touch with legislative matters, and in general directs the non-scientific activities of the Association. The Journal is the official organ of the Association. Council makes provision for it and appoints the editor.

Much of the work of the Association is done by committees. There are standing committees on continuous functions of the Association, and special committees on matters of a more limited nature. The membership is appointed by the president, in some cases according to provisions in the *By-Laws* and in others subject to instructions from the Council and the House of Delegates. Reports of standing and special committees are placed in the hands of the secretary sixty days prior to the annual meeting, and in turn copies are sent to the delegates of the component county societies at least thirty days prior to the meeting. The personnel of the committees is published in the *Journal*.

Resolutions are presented to the House of Delegates by delegates from the county societies, the council and the chairmen of the standing and special committees. Resolutions are referred to appropriate reference committees for consideration and report, before they can be voted upon by the House of Delegates, exceptions being those so ordered by two-thirds vote of the delegates present and those presented by the Council on the last day of the session. The Reference Committees are appointed from the membership of the House of Delegates. Each committee holds open hearings upon the matter under consideration. Following the open hearing, the committee goes into executive session and prepares its report for the House of Delegates.

The officers of the Association are elected by the House of Delegates during the final session of its Annual Meeting. The place of the next meeting is decided by the House of Delegates, the time of the meeting is set by the Council.

This plan of organization corresponds closely to that of the House of Delegates of the American Medical Association. It provides equitable representation, affords opportunity for individuals and groups to express their views and has safeguards against action without consideration.

William H. Priolean, Pres.,  
S. C. Medical Association.

# Editorials

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## MENTAL HEALTH CLINICS

The newly established clinic at Florence will make five clinics which the Mental Health Commission operates in the state. As in other states, this is worth-while progress toward a need which will not be met for many years, if ever, in a completely practical way, society being what it is.

To the practitioner, the ways of the mental health worker are sometimes wondrous and obscured by a thick haze of phraseology which seems to retard any quick and direct approach to the problem in hand. He grants that the problem is difficult, and he is probably more than glad to pass it on to the psychologist *et alia*, just as in the old days the baffled practitioner sent his difficult patient on a long sea voyage and hoped for the best. Actually, the handling of a case may require as much time as a sea voyage, with a visit now and another a month away, just as the vessel touches periodically at ports-of-call. Nor does the solution, unless it be that by time, always bring a very practical procedure through the psychological fog. Probably the practitioner knew that grandmother was spoiling the child, but he couldn't very well wield the axe on the old lady for the victim's benefit.

These are only facetious animadversions. There is one unsolicited suggestion which might be worthy of consideration, and that is that the baffled practitioner would be happy to be taken into the confidence of the clinic, to have some periodic report as to progress and prognosis, and to feel that he has not cast his patient into some mysterious washing machine from which at some distant date the patient is to emerge cleansed of all undesirable psychological stain.

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## NOR ANY DROP TO DRINK

The legalized decision of The Bowater Southern Paper Company to acquire a considerable slice of South Carolina from which will grow pine which will produce pulp, paper, necessary (?) stench, and much waste, which

last will be discharged into the Catawba river, brings into prominence the authority of The Water Pollution Control Authority. This body has issued a permit which allows the waste to be discharged into the river, provided that a "Class B" or better stream be maintained. There is no reason to doubt that the provision will be observed, but it will be interesting to see whether the Authority will have teeth enough to strain out the undesirable material if it should prove to be excessive.

With our present treatment of our waters, it may well be that future fishing may be confined to goldfish bowls and all future bathing to tubs.

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## PRESCRIPTION OPTICIANS

In contrast to the efforts of the optometrists to invade the field of the ophthalmologist, or perhaps even to push the legitimate physician off-side, the gesture of the Guild of Prescription Opticians is refreshing. These people who make but do not prescribe glasses have set up eighteen fellowships of \$1800 each for residents in ophthalmology. Each fellow is from one of six areas of the United States or Canada, and he is selected by a committee of ophthalmologists, not by the donors. Six fellows have been named, and the number will increase gradually to eighteen. This has the appearance of a worth-while aid to medical education.

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The members of the Medical Advisory Committee to the South Carolina Industrial Association have been reappointed by the Governor for terms ending June 30, 1958 and are as follows:

Dr. Malcolm Mosteller, Columbia	Radiol.
Dr. Harold Pratt-Thomas, Charleston	Path.
Dr. H. H. Plowden, Columbia	Path.
Dr. Samuel Fisher, Greenville	Radiol.
Dr. W. L. Byerly, Jr., Hartsville	Surg.
Dr. C. H. Epting, Columbia	Orthop.
Dr. Leon Poole, Spartanburg	Surg.
Dr. R. L. Crawford, Lancaster	G. P. Surg.

Dr. J. L. Hughes, Greer	G. P. Int. Med.
Dr. I. G. Linton, Charleston	Surg.

The Committee of the State Association on Industrial Health has been reappointed, as follows:

Dr. J. L. Hughes, Chairman, Greer	G. P.
Dr. W. B. Townsend, Columbia	Occup. Med.
Dr. Izard Josey, Columbia	Int. Med.
Dr. Leslie Meyer, Greenville	Orthop.
Dr. G. R. Laub, Columbia	EENT
Dr. C. W. Evatt, Charleston	EENT
Dr. J. H. Crooks, Greenville	Dermat.
Dr. Katherine B. MacInnis, Columbia	Allergy
Dr. I. G. Linton, Charleston	Surg.
Dr. W. P. Beckman, Columbia	Psych.
Dr. T. E. Whitaker, Greenville	Radiol.
Dr. G. W. Hammond, Spartanburg	Ob. Gyn.

**SLASH WORDAGE TO COVER ETHICS.** The Principles of Medical Ethics of the American Medical Association, which have served as a guide for physicians for more than a century, are undergoing radical surgery.

The House of Delegates, meeting in Chicago, voted in favor of a Reference Committee report which approved a revision of the Principles as prepared by the Council on Constitution and By-laws and endorsed by the Judicial Council. The reference committee and both Councils recommended that final action be deferred until the Seattle Clinical session "to allow ample opportunity for thorough study on the part of members of the A. M. A."

House action in Chicago followed submission of a report by Dr. Louis A. Buie, chairman of the Council on Constitution and By-laws, which said, among other things, that "there exists a broad twilight zone in which the concepts of ethics and etiquette are entangled and in which there is much over-lapping and consequent confusion."

"The present Principles," this report said, "are encumbered by verbosity and qualifying constructions of dubious value which in themselves engender confusion. Hence, it was felt that the Principles should be broad and should provide a framework within which interpretations could be made. They should deal with basic principles which can serve as a ready reference for the busy practitioner."

A salient point in the report said: "It is important to understand that medical ethics are not distinct or separate from ethics generally, but simply emphasize those general principles which are of particular concern to the medical profession. The ethical physician will observe all ethical principles because he realizes that they cannot be enforced by penal reprisals, but must be binding in conscience."

The Principles as proposed consist of a brief Preamble and 10 sections which succinctly express the fundamental ethical concepts embodied in the present Principles.

"Every basic principle," the Council report said, "has been preserved. On the other hand, as much as possible of the prolixity and ambiguity which in the past obstructed ready explanation, practical codification and particular selection of basic concepts, has been eliminated."

The 10 proposed sections, representing the essence of brevity, follow:

1. The prime objective of the medical profession is to render service to humanity with full respect for both the dignity of man and the rights of patients. Physicians must merit the confidence of those entrusted to their care, rendering to each a full measure of service and devotion.

2. Physicians should strive to improve medical knowledge and skill, and should make available the benefits of their professional attainments.

3. A physician should not base his practice on an exclusive dogma or a sectarian system, nor should he associate voluntarily with those who indulge in such practices.

4. The medical profession must be safeguarded against members deficient in moral character and professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

5. Except in emergencies, a physician may choose whom he will serve. Having undertaken the care of a patient, the physician may not neglect him. Unless he has been discharged, he may discontinue his services only after having given adequate notice. He should not solicit patients.

6. A physician should not dispose of his services under terms or conditions which will interfere with or impair the free and complete exercise of his independent medical judgment and skill or cause deterioration of the quality of medical care.

7. In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him to his patient.

8. A physician should seek consultation in doubtful or difficult cases, upon request or when it appears that the quality of medical service may be enhanced thereby.

9. Confidences entrusted to physicians or deficiencies observed in the disposition or character of patients, during the course of medical attendance, should not be revealed except as required by law or unless it becomes necessary in order to protect the health and welfare of the individual or the community.

10. The responsibilities of the physician extend not only to the individual but also to society and demand

his cooperation and participation in activities which have as their objective the improvement of the health and welfare of the individual and the community.

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**GOLDEN ANNIVERSARY,  
SOUTHERN MEDICAL ASSOCIATION**

The Southern Medical Association will celebrate its Golden Anniversary with a special program at the Read House, Chattanooga, Tennessee, Tuesday evening and Wednesday forenoon, October 2-3. This will be a historical and inspirational meeting and will not conflict with the regular annual scientific session at Washington, November 12-15.

A group of physicians from Alabama, Florida, Georgia, Louisiana, Mississippi and Tennessee met at the Read House in Chattanooga on October 2-3, 1906, and organized the Southern Medical Association. The founding fathers in the Constitution and By-Laws they adopted at Chattanooga stated that "the exclusive purpose of this Association shall be to develop and foster scientific medicine. \* \* \* It shall not at any time take active part in any economic, political or sectarian questions or concerted movements for securing legislative enactments." It was to be devoted exclusively to scientific medicine. That same Constitution and By-Laws made it necessary for a physician to be a member of his county and state medical societies to be eligible to membership in the

Southern Medical Association. All of the above has never been changed. Several years later the physicians who were members of the state and county medical societies in Arkansas, District of Columbia, Kentucky, Maryland, Missouri, North Carolina, Oklahoma, South Carolina, Texas, Virginia and West Virginia were made eligible to membership.

The Golden Anniversary Celebration will begin with a dinner meeting at the Read House, Chattanooga, on Tuesday evening, October 2. A feature of that program will be an address by Dr. R. L. Sanders, Memphis, immediate past-President of the Southern Medical Association, on "Fifty Years of Medicine in the South." Dr. Sanders graduated in medicine at Nashville in 1906, his fifty years of practice running concurrently with the fifty years of the Southern Medical Association. Dr. Dwight H. Murray, Napa, California, President of the American Medical Association, will represent the AMA at the Celebration. A feature of the Wednesday, October 3, morning session will be the unveiling of a plaque to be placed in the Read House commemorating the birth of the Southern Medical Association there fifty years before on that date.

Physicians who are members of their county and state medical societies are most cordially invited to come to this Golden Anniversary Celebration, the celebrating of the fifty years that the Southern Medical Association has been a great force in the advancing of scientific medicine in the South.





## BLUE CROSS . . . BLUE SHIELD



An alleged hostility of the public toward the medical profession is a favorite theme for lay writers in certain types of popular magazines. The usual set-up of articles of this type is to make the allegation, to quote out of context seemingly supporting statements from committees, boards, organizations, and individuals, and then to state fancied causes for enmity—and the writer's ideas for relief.

Such an article was published in the July, 1956, number of the *Woman's Home Companion* under the byline of Sidney Shalett and J. Robert Moskin. The article is poorly written, lacks unity, includes damning quotations out of context, and uses freely the testimonial technique. It is principally an attack on doctors, but it does not clearly differentiate between sickness costs for professional care and those for hospital care, drugs, and other ancillary services.

The article places the blame for public animosity on organized medicine, chiefly the AMA, charging that organized medicine does not purge itself of doctors who overcharge patients, who split fees, who do unnecessary surgery, and who "through malpractice suits have been proven incompetent to practice." It criticizes AMA for having originally disapproved Blue Cross, and it criticizes Blue Cross and Blue Shield for not providing services at a price the public would "*be willing*" to pay. The authors seem to have a liking for compulsory government health insurance, and this, the first of two articles, lays the groundwork for advocating prepaid group clinic care as the solution to the public's dilemma.

The article is a harsh, unfair, and irresponsible attack on doctors of medicine and the American system of medical practice. It places the blame for the present costs of illness upon the doctors.

This is not the place to attempt any rebuttal of this article, or to attempt to clear the medical profession of the charges made. However, since certain deficiencies of Blue Cross and Blue Shield are referred to, and since the statement is made that the costs of medical care are more than the patient is *willing* to pay, and since surprise and disappointment of the patient when he finds that his insurance does not pay his entire bill is harped on, some remarks in this column are in order.

It is unusual and, perhaps, unique to use the expression "costs of medical care are more than the patient is *willing* to pay." The phrase usually used is more than the patient is *able* to pay. There is no doubt that there is considerable criticism of hospital, drug, and professional costs. One hears complaints frequently, and he hears them more often from one of the moderately well-to-do who has used the luxuries of hospital care, rather than only the necessities. These people are usually able to pay what they are charged, but they do so unwillingly. However, they not only demand and

receive luxuries in connection with their medical care, but they enjoy other luxuries as well. Such individuals do not willingly forego the luxuries of automobiles which provide more than transportation, alcoholic beverages, tobacco, beauty parlor care, home ownership, etc. in order to pay costs of medical care. With half of the families of the United States having an income of \$5000.00 or more, and a considerable fraction of the other half being true medical indigents, it should be expected that doctors' fees should average considerably more than they did twenty years ago. Actually, they have not risen as rapidly or as much percentage-wise as has the general cost of living. In spite of the increase in the cost of living, living standards have increased tremendously. Doctors have enjoyed and have deserved many of the luxuries of living enjoyed by their patients.

Hospital costs have increased greatly, and the rise will continue for, perhaps, ten years. Length of stay in hospital has been shortened materially and has, perhaps, reached a minimum. Therefore, the over-all costs of treatment of illnesses in hospital will continue to rise. Hospital bills, when unexpected and unprepared for, are almost always inconvenient, and most often truly distressing. However, such bills should not be unexpected. One person out of nine will be admitted to a hospital each year. Furthermore, hospital and other medical-care bills can be paid in the traditional American way, namely, in installments. It has been said that 80 per cent of the Cadillac cars—truly a car for the wealthy, although frequently driven by the artisan and laborer—sold in Greenville are bought on installment plans. Medical services can be bought in a similar way, with two important differences. Payment is made before delivery rather than after, and payment is shared by other members of a group.

Four important ideas should be instilled into the minds of people; namely, charges for medical care are inevitable; they are expensive and will remain so; they can be paid for in advance by installment payments through the mediums of Blue Cross and Blue Shield; and, since hospital and other costs shall certainly continue to rise, the costs of Blue Cross and Blue Shield membership shall continue to increase. Regardless of how much Blue Cross and Blue Shield have to increase their dues, the protection afforded will still be a bargain, because other members of the group will always share in the costs of operation, and because operation is on a non-profit basis. Commercial insurance cannot compete with Blue Cross and Blue Shield because only the Blues can offer full coverage of the costs of illness—Blue Cross by agreement with hospitals, and Blue Shield by agreement with sponsoring doctors. As a goal to strive for, it were better

that the Blues strive to increase benefits and to make them more completely cover the costs of all medical care, than that they strive to hold costs to a minimum.

J. DECHERD GUESS, M.D.  
*Medical Director*

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## DEATHS

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Dr. Isaac Shepherd Funderburk, 73, former mayor of Cheraw and Chesterfield County's oldest practicing physician, died in July. He had been ill a week.

Dr. Funderburk had lived in Cheraw since 1919 and had served on the town council and as mayor for several terms. He was a charter member of the Lions Club, of which he served as president. He was a member of the Cheraw Masonic Lodge, the Order of the Eastern Star, the Omar Temple of the Mystic Shrine and the County Medical Society.

Dr. Funderburk was born April 15, 1883, at Pageland. He was a graduate of Davidson College and the Emory University Medical School. He also did graduate work in New York City.

From 1910 to 1919, he had practiced medicine at Mt. Croghan and also was president of the Bank of Mt. Croghan.

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### DR. JAMES PERRY HARRISON

Dr. James Perry Harrison, Chesterfield County's oldest practicing physician, died shortly after a heart attack on August 23.

He had been in declining health for some time.

He was born in Micanopy, Fla. He was reared in Greenville, S. C., and was graduated from Furman University and was a graduate of The Medical College of South Carolina in 1913.

He practiced medicine in Bluffton, Brunson, Garnet, Buffalo Mills and Hartsville before coming to Cheraw in 1931.

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### DR. JAMES E. ORR

Dr. James E. Orr, 53, a Seneca physician for 24 years, died unexpectedly at his home August 28.

He was born at Pendleton and was educated at Virginia Medical College, the University of South Carolina and The Medical College at Charleston. His internship was at the Spartanburg General Hospital.

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## NEWS

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Dr. Leslie E. Traughber of Aiken has accepted a residency in Anesthesiology at the University Hospital, Augusta, Georgia, beginning July 1st.

Dr. Julius Eugene Campbell, Jr., who has been in general practice for the past four years in Barnwell, S. C., will occupy Dr. Traughber's office at the Medical Clinic in Aiken.

Dr. Campbell was graduated from Clemson College with a Bachelor of Science degree and was graduated

from the Medical College of South Carolina in 1951. He served his internship at the Columbia Hospital, Columbia.

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Bernard E. Ferrara, M.D. announces the opening of his office for the practice of general surgery at 141-A Rutledge Avenue, Charleston.

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Haskell S. Ellison, M.D. announces the opening of his office for the practice of internal medicine at 109-A Ashley Avenue, Charleston.

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Dr. C. Tucker Weston, Columbia, physician, was elected vice-president of the Sertoma International service organization in June.

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Martin M. Teague, physician and surgeon in Laurens, took office July 1, as governor of District 282 of Rotary International world-wide service club organization, it was announced at Rotary's world headquarters in Evanston, Ill.

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Elected at the recent convention of Rotary International in Philadelphia, he will coordinate the activities of 29 Rotary clubs in part of South Carolina throughout the 1956-57 fiscal year.

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Dr. George Wilkinson, Jr., graduate of Johns Hopkins University Medical School and grandson of a former Greenville physician, has begun practice with his father.

A specialist in internal medicine, he thus becomes the third generation to carry on a medical career over the years dating back to 1885 when his grandfather, Dr. James R. Wilkinson, began practicing in Greenville. He became a Presbyterian medical missionary in 1895. Dr. George Wilkinson Sr. began his practice here in 1925.

Dr. Wilkinson Jr., who was graduated from Presbyterian College, Clinton, in 1945 interned for a year and spent a year in residency at Geisinger Memorial Hospital, Danville, Pa., following his graduation from Johns Hopkins in Baltimore, Md.

In 1951-53 he was a fellow in medicine at the Mayo Clinic, Rochester, Minn. and returned there, 1955-56, to complete work for a master's degree in medicine and physiology from the University of Minnesota. Between these two periods at Mayo's, he served as a captain in the Medical Corps of the Army for two years.

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Dr. Carson Jones is now associated with Dr. W. A. Matthews in Rock Hill, having recently left Atlanta, Georgia, where he was radiologist in the Veterans Administration Hospital.

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Dr. J. S. Lambert opened his office in Lockhart in July. He is a native Georgian, and served his internship at Spartanburg General Hospital.

Dr. Don A. Richardson has returned to Seneca where he is now associated with Dr. Francis B. Adams in the practice of general medicine. He received his degree from the Medical College of South Carolina and has recently completed his internship at Indianapolis General Hospital.

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Dr. Louis Johnson has recently entered the practice of medicine in Cheraw. He is a graduate of The Citadel, class of 1951, the Medical College of South Carolina, class of 1955. He interned at University Hospital, Augusta, Georgia.

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About July 1 Dr. L. R. Richardson, Jr., and Dr. William J. Bannen, Jr., began a partnership arrangement in the practice of general medicine in Simpsonville. Their offices will be located on North Main Street, until the completion of their new building on South Main Street sometime in October or November.

Dr. Richardson is a graduate of the Medical College of South Carolina, Class of 1949. He completed his internship at the Greenville General Hospital in 1950 and practiced general medicine in Simpsonville from then until August 1954 at which time he entered the United States Air Force. He served as chief of the out patient department at Maxwell Air Force Base, Montgomery, Ala.

Dr. Bannen graduated from the University of Maryland, School of Medicine, in 1946 and interned at Medical Center in Pittsburgh, Penn. He completed a year's general residency at Thomas Hospital in Charleston, W. Va., followed by three years of general practice in Dunbar, W. Va., two years as a flight surgeon in the United States Air Force and a year's residence in pediatrics at the Salt Lake City General Hospital, Salt Lake City, Utah. He arrived in Simpsonville in September of 1954 and has been engaged in the practice of General Medicine since that time.

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Dr. Ambrose Gonzales Hampton, Jr., has begun the practice of internal medicine in Columbia, with offices at 1840 Hampton Street.

Dr. Hampton was graduated from Duke University School of Medicine in 1952. He served his internship and residency at the University of Virginia Hospital. He then became instructor in medicine at Tulane University, and attending physician at Charity Hospital there, with a clinical fellowship in cardiovascular disease. His service in New Orleans was completed last month, and he then came to Columbia to begin practice.

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Dr. Shephard N. Dunn, a native of Sumter, will open practice as an ophthalmologist in Columbia in offices with Dr. William J. Bristow, 1718 Hampton St.

His practice would be limited to eye surgery and treatment of diseases of the eye.

After graduating from Sumter High School, he attended Davidson College, where he earned his bache-

lor's degree. He received his medical training at Johns Hopkins University School of Medicine, and received an M.D. degree there in 1952.

The following year he interned at University Hospital in Cleveland, Ohio. Dr. Dunn took specialist training as a resident at the Wilmer Ophthalmological Institute, Johns Hopkins Hospital, for three years.

A veteran of World War II, he spent almost a year in the Pacific theater as a Marine.

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Dr. John D. Bunch, Jr. has opened his office in Columbia for the practice of obstetrics and gynecology.

Dr. Bunch attended Furman University, and was graduated from the University of South Carolina and from the Medical College of Charleston. He served his internship at Roper Hospital in Charleston.

During World War II he served three years as a Lieutenant (jg) in the United States Navy.

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Dr. George W. Fort, age 38, a native of Clarksville, Tennessee, a graduate of the University of Tennessee's Medical College, having served an internship at Columbia Hospital, began the general practice of medicine on July 1 in Calhoun Falls.

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Dr. B. F. Sowell, a native of Chesterfield County, is now associated in the practice of medicine in Chesterfield with Dr. Walter R. Wiley.

Dr. Sowell was graduated from the Medical College of South Carolina in 1955. He completed his internship at McLeod Infirmary in Florence this June.

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Dr. Allen Stone has affiliated with Dr. George Tyson in the practice of medicine in Florence.

Dr. Stone was graduated from the Medical College of South Carolina in 1955 and served his internship at McLeod Infirmary. He was graduated from Clemson College in 1951 with an M.S. degree and received his B.S. from Wofford in 1949. He spent three years in the Navy before beginning his formal education.

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Dr. Robert R. Sewell, who has completed a tour of duty with the Army, plans to return to Anderson where he will resume the general practice of medicine.

Dr. Sewell, who had the rank of captain in the Army, was discharged from Fort Sam Houston, where he had been stationed for several months. Prior to that he was the commanding officer of the medical detachment of the First Cavalry Division at Camp Youngmans, in Japan, where he was located from Sept. 2, 1954 to January 21, 1955.

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Dr. Charles N. Simmons took over Dr. G. L. Irwin's practice in Sumter in June. Dr. Irwin, who does not plan to resume his local practice, is going to Chapel Hill, N. C. to study radiology.

A native of Sullivan's Island, Dr. Simmons is a graduate of the Medical College of S. C. and the Uni-

versity of S. C., where he was on the Dean's List and a Phi Beta Kappa. He interned at Roper Hospital, and also spent time at St. Francis Xavier and Baker Memorial Hospital in Charleston.

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Dr. Wayne C. Brady, former chief of orthopedic surgery at Philadelphia Naval Hospital, has joined Dr. Charles B. Thomas in partnership in Greenville. Dr. Brady was discharged from active navy duty in May 1956, with the rank of lieutenant commander.

From 1943 until 1945 he served in the navy. Graduated from the Medical College of South Carolina in 1947, he served a rotating internship at Southern Baptist Hospital, New Orleans, La., and at Columbia Hospital, Columbia.

Entering the navy for the second time in January, 1947, Dr. Brady received his orthopedic training at Columbia Hospital and at the United States Naval Hospital, Bethesda, Md. He practiced orthopedic surgery in naval hospitals at Camp Lejeune, Newport, Bethesda, and Philadelphia.

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#### THE DISTINGUISHED SERVICE AWARD OF THE SOUTHERN MEDICAL ASSOCIATION

The Distinguished Service Award of the Southern Medical Association was created by an amendment to the Constitution and By-Laws of the Association at its Forty-Ninth Annual Session in Houston, Texas, November 14-17, 1955.

The Distinguished Service Award was established for the purpose of recognizing a physician-member of the Southern Medical Association for outstanding contributions to the advancement of Medicine. The Southern Medical Association, since 1912 and until 1955, had awarded a research Medal to fifteen recipients. The Research Medal was awarded only for work done in the field of pure medical research.

Another purpose of the Distinguished Service Award is to broaden the base of the scientific awards of the Association. The Distinguished Service Award may be bestowed for outstanding and meritorious work done in any field of medicine or its related and ancillary sciences. Thus, outstanding achievement in the fields of medicine, surgery, research, medical education, and in any of the medical and surgical specialties comes within the scope of the Distinguished Service Award.

Any member of the Association in good standing is eligible for nomination as a recipient of the Award.

Any member in good standing of the Association may nominate a candidate for the Award.

The nominees are evaluated by an unpublicized committee which selects three of the nominees annually and submits their names to the Council of the Southern Medical Association.

The Council elects annually one of the three submitted by the Committee on the Distinguished Service Award as the recipient.

The election by the Council is held during the Annual Meeting of the Association. If possible, the winner is publicly presented to the Association during the last general session of the membership at a given annual meeting.



Family doctors from all parts of the country attended the formal dedication of the new American Academy of General Practice headquarters building, Volker Boulevard at Brookside, Kansas City, Mo. on September 1, 1956.

The new \$660,000 building includes the editorial and production offices of *GP* magazine, published monthly by the Academy.

The Academy, founded in 1947, currently has more than 21,000 family doctor members.

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A course, "Recent Advances in Cardiovascular Diseases," is being held at The Mount Sinai Hospital, New York, October 8th thru 12th, 1956, under the auspices of The American College of Physicians. The co-directors will be Arthur M. Master and Charles K. Friedberg. The fees for members of The American College of Physicians will be \$30.00, non-members \$60.00. Registration should be filed with the Executive Secretary, American College of Physicians, 4200 Pine Street, Philadelphia 4, Pennsylvania.

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Margaret B. DeVore, M. D. announces the opening of her office for the practice of General Medicine at 3 Avondale Avenue, Avondale, Charleston, S. C.

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Dr. Joseph D. Thomas, Denmark physician, became president of the Denmark Lions club for the year beginning July 1.

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Dr. Julian Price, Florence, has been re-elected to the Board of Trustees of the American Medical Association.

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A residency program in surgery was initiated at Greenville General Hospital on July 1.

The program has been developed by the medical staff of the hospital and approved by the American Medical Association and the American Board of Surgery.

Dr. David Wilson, who has been elected head of the department of general surgery, will be responsible for directing the four-year residency program at Greenville.

A new infirmary has just been completed at Carlisle Military School and will be named in honor of Dr. Henry Jefferson Stuckey, the school's physician since 1911.

The Committee on Maternal Welfare of the South Carolina Medical Association is to be constituted as follows—

Dr. Lawrence Hester, Chairman, Charleston.  
Dr. William A. Hart, Columbia.  
Dr. John Fleming, Spartanburg.  
Dr. James E. Bell, Jr., Sumter.  
Dr. William Speissegger, Charleston.  
Dr. Sol Neidich, Beaufort.  
Dr. Swift Black, Dillon.  
Dr. Duncan Alford, Spartanburg.  
Dr. Hilla Sheriff, Columbia, Ex-officio.

Two new members of the executive committee of the State Board of Health were named by Gov. Timmerman.

They are: Dr. Frank C. Owens of Columbia, to replace Dr. W. R. Barron of Columbia; and Dr. W. Wyman King of Batesburg, to replace Dr. L. D. Boone of Bluffton.

All other members were re-appointed. They are: Dr. W. R. Wallace of Chester, Dr. Keitt H. Smith of Greenville, Dr. W. R. Mead of Florence, Dr. Richard W. Hanckel of Charleston, and Dr. E. W. Camp, Jr. of Anderson.

Dr. R. L. Crawford of Lancaster was appointed to the hospital advisory council of the State Board of Health to replace Dr. King who resigned to become a member of the executive committee. Dr. Crawford's term lasts until September 17, 1957.

Dr. W. M. Lemmon of Columbia has been awarded a fellowship for post-doctoral studies from the National Heart Institute.

He has a two year period of traineeship with Dr. C. P. Bailey in Philadelphia at the Halmemann Hospital Heart Institute.

He is a native of Sumter where his father, Dr. Charles J. Lemmon, is a doctor.

Doctor Lemmon's study will keep him at the Philadelphia institution until about June 30, 1958.

A Citizens' Committee has been appointed at Bethune for the purpose of helping to secure a physician for the community, Mayor W. A. McDowell, Jr., reported.

Bethune was left without a medical doctor when Dr. D. E. Tiffney moved away some time ago.

During the recent South Carolina Medical Association Annual Meeting at Myrtle Beach, Dr. W. V. Branford was elected President of the South Carolina Alumni Chapter of the Phi Rho Sigma Medical Fraternity. Other officers elected were Dr. John A. Vonlche, Walterboro, Vice-President, Dr. Henry F. Hall, Columbia, Secretary and Treasurer. Dr. Ely Brooks, Charleston is councilor for Chi Delta a student membership of seventy medical students.

A new medical partnership has been established consisting of Doctors S. Darby Pendergrass, Jr., Paul H. Garrison and J. A. Underwood, Jr., for the general practice of medicine in Greenwood.

Dr. Pendergrass is a graduate of the University of South Carolina and the Medical College of South Carolina, and took post-graduate training at St. Francis Hospital in Pittsburgh. He has been in general practice in Greenwood for the past four years.

Dr. Garrison, a graduate of Wofford College and the Medical College of South Carolina, took his post-graduate training at Spartanburg General Hospital. He has been associated with Dr. Pendergrass for the past year.

Dr. Underwood is a graduate of the United States Naval Academy at Annapolis and the Medical College of South Carolina, with post-graduate training at Greenville General Hospital. He has been established in general practice in Greenwood for the past year.

Dr. R. M. Fuller is now associated with Dr. George R. Blalock in the Blalock Clinic and Hospital at Clinton for the general practice of medicine.

James S. Howell, Jr., M. D. announces the opening of his office for the practice of general medicine at Pinecrest—Magnolia-Garden Road, Charleston.

Charles B. Thomas, M. D. announces the association of Wayne C. Brady, M. D. in the practice of orthopedic surgery at 701 Pendleton Street, Greenville.

One of South Carolina's doctors completed 50 years of practicing medicine in Georgetown this June.

In 1911, Dr. Bell left Georgetown to serve three years on the state board of health, but he was more than anxious to get back to his adopted hometown.

One of Dr. Bell's most recent honors was when his old Alma Mater, the Medical College of Virginia, awarded him a pin for 50 years of service in the field of medicine.

Dr. L. R. Richardson, Jr. and Dr. William J. Baunen, Jr. will begin a partnership in the practice of general medicine at Simpsonville on July 1.

Dr. Richardson is a 1949 graduate of the Medical College of South Carolina. He served his internship at Greenville General Hospital. In 1954 he entered

the U. S. Air Force and is now on duty at Maxwell Air Force Base, Alabama.

Dr. Baunen graduated from the University of Maryland School of Medicine in 1946, interned at Medical Center in Pittsburgh, Pa., and completed a general residency at Thomas Hospital in Charleston, W. Va. He practiced general medicine in Dunbar, W. Va., and was an Air Force flight surgeon two years. He served a year's residency in pediatrics at Salt Lake City General Hospital. He has practiced general medicine in Simpsonville since Sept. 1954.

#### FLUORINE EQUALS BETTER TEETH

Children in Kingstree have less than one-half the number of cavities in their teeth as do tots of Greenville.

A recently completed survey by the State Board of Health has revealed that, on the average, Kingstree children experience 60 per cent less tooth decay than do the Greenville children. The study further disclosed that continuous resident children of Kingstree have an average of one decayed, missing, or filled tooth, compared to five for Greenville children, or 80 per cent less tooth decay.

State health officials attribute the marked difference in tooth decay rates to the fact that Kingstree benefits from the presence of fluorine in the community's water supply.

In order to confirm results of studies on fluoridation made throughout the country in a "closer-to-home" location, the dental division of the State Board of Health examined 1,072 school children, age 5 through 16, in the Kingstree school system, to determine the dental decay experience of children reared on fluoridated water. The results of this study were compared with a similar survey of Greenville, conducted in 1954.

Other significant contrasts were noted between the children of the two cities. Only two per cent of continuous resident children in Kingstree had experienced loss of a permanent tooth, compared with 30 per cent of all children in Greenville. The average number of missing permanent teeth per child in Greenville was 19 times that for Kingstree's continuous residents. The percentage of children with no decay experience in permanent teeth for Kingstree (38%) was almost three times greater than for Greenville (14%).

State dental officials were quick to explain that the survey of 1954 showed that the quality and amount of dental care received by Greenville children was excellent. In spite of this, however, for every tooth decayed and unfilled in Kingstree children, there were two needing filling in Greenville.

The health agency also pointed out that these and other studies, in addition to revealing differences in tooth decay rates in various localities, are useful in deciding community action needed for combatting dental public health problems.

*S. C. Board of Health News Letter*

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## ANNOUNCEMENTS

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#### MEETING IN CHARLOTTE

On Thursday, November 8, 1956 at the Hotel Charlotte, Charlotte, N. C., the Mecklenburg County Chapter of the North Carolina Academy of General Practice is sponsoring a "Symposium on Abdominal Conditions". There will be six speakers, all of national prominence. The moderators for the sessions will be Dr. C. C. Carpenter, Dean of Bowman Gray Medical School, Winston-Salem, North Carolina; and Dr. W. R. Berryhill, Dean of the University of North Carolina Medical School, Chapel Hill, North Carolina. The subjects and speakers are listed below:

Technique and Value of Sigmoidoscopy—J. P. Nesselrod, M.D., Chicago

Detection of Ectopic Pregnancy—Lewis I. Post, M.D., New Orleans

Unexpected Abdominal Conditions in Infancy and Childhood—Orvar Swenson, M.D., Boston

Non-penetrating Abdominal Injuries—N. Frederick Hicken, M.D., Salt Lake City

Management of the Jaundiced Patient—Paul S. Rhoads, M.D., Chicago

Gastro-Intestinal Disorders in the Elderly Patient—Frederic D. Zeman, M.D., New York City

This program has category 1 (formal) approval by the American Academy of General Practice.

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The American Goiter Association again offers the Van Meter Prize Award of \$300.00 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association which will be held in the Hotel Statler, New York, New York, May 28, 29 and 30, 1957, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations, should not exceed 3,000 words in length and must be presented in English. Duplicate typewritten copies, double spaced, should be sent to the Secretary, Dr. John C. McClintock, 149½ Washington Avenue, Albany 10, New York, not later than January 15, 1957. The committee who will review the manuscripts is composed of men well qualified to judge the merits of the competing essays.

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The Council on Undergraduate Medical Education of the American College of Chest Physicians offers three cash awards to be given annually for the best contributions prepared by undergraduate medical students on any phase in the diagnosis and treatment of chest diseases (heart, lungs or both).

Upon the recommendation of the Council, which was approved by the Board of Regents of the College at their recent annual meeting, the awards will be increased for the 1957 contest. The first prize will be \$500; second prize will be \$300; and third prize \$200.

Each winner will also receive a certificate of merit.

The winning contributions will be selected by a committee of chest specialists and will be announced at the 23rd Annual Meeting of the American College of Chest Physicians to be held in New York City, May 29-June 2, 1957. All manuscripts become the property of the American College of Chest Physicians.

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**Urology Award**—The American Urological Association offers an annual award of \$1000 (first prize of \$500, second prize \$300 and third prize \$200) for essays on the result of some clinical or laboratory research in Urology. Competition shall be limited to urologists who have been graduated not more than ten years, and to hospital internes and residents doing research work in Urology.

The first prize essay will appear on the program of the forthcoming meetings of the American Urological Association, to be held at the Hotel William Penn, Pittsburgh, Pennsylvania, May 6-9, 1957.

For full particulars write the Executive Secretary, William P. Didusch, 1120 North Charles Street, Baltimore, Maryland. Essays must be in his hands before December 1, 1956.

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**AMERICAN RHINOLOGIC SOCIETY  
ANNUAL MEETING**

The American Rhinologic Society will hold its annual meeting in Chicago, October 9-13.

The first evening will be devoted to a business session. A series of surgical demonstrations and seminars will be presented in the Illinois Masonic Hospital from 8 a. m. to 10 p. m. on the three following days. These will cover many phases of rhinology and will be conducted under the direction of Dr. Maurice H. Cottle, professor and chairman of the department of otolaryngology, Chicago Medical School.

The annual scientific program will be presented in the Palmer House on the closing day. This will include a morning symposium on "Expanding Horizons in Rhinology," with the following participants:

Dr. Charles J. Petrillo, Yale University School of Medicine, New Haven. (Anatomy)

Dr. Newton D. Fischer, University of North Carolina School of Medicine, Chapel Hill. (Physiology)

Dr. Harold S. Ulvestad, University of Minnesota Medical School, Minneapolis. (Surgery)

Dr. French K. Hansel, Washington University College of Medicine, St. Louis. (Allergy)

Guest speakers on the afternoon program will be:

Dr. Roy R. Grinker, director of the Institute for Psychosomatic and Psychiatric Research, Michael Reese Hospital, Chicago, "The Psychosomatic Approach to Rhinological Problems."

Dr. Conrad Pirani, professor of pathology, University of Illinois College of Medicine, Chicago, "The Connective Tissue in Wound Healing."

Hubert R. Catchpole, Ph.D., research associate professor of pathology, University of Illinois College of Medicine, Chicago, "Newer Ideas on the Significance of Ground Substance of Connective Tissue."

Dr. Matthew S. Ersner, professor of otolaryngology and rhinology, Temple University, Philadelphia, will be the guest of honor and speaker at a dinner in the evening. The toastmaster will be Dr. Ralph H. Riggs, Shreveport, president of the Society.

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**To Physicians in South Carolina:**

Having cut my eyeteeth (literally) in the Southern Medical Association, I can, indeed, say that it has meant much through the years scientifically and socially. There friends have been made I would loathe to lose or long lay by. There I have been met with helpfulness, enthusiasm, and encouragement. The Southern can mean as much to you as it has to me in return for a small investment of interest and time most pleasurably spent.

My appeal is particularly to younger men in medicine, though all can benefit by membership in Southern. Here is a forum for your thoughts, a garden in which to grow, a place where always a gentleman may say what he thinks and know that he is among friends.

The coming Golden Anniversary Meeting in Washington, D. C., November 12-15, will be an occasion well worth your consideration and attendance, and will, no doubt, live long in memory.

Join us in Washington for a real medical meeting, big enough, small enough, and just the thing for you and me.

Sincerely,

J. W. Jervcy, Jr., M. D.

Councilor For South Carolina

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**SOUTHEASTERN ALLERGY ASSOCIATION**

October 5 and 6, 1956

Barringer Hotel, Charlotte, N. C.

Friday, October 5, 1956

*Theme: Allergy and Its Relationship to Medicine and Surgery*

9:15 A. M.

"Allergy and Its Relation to General Medicine"—Katharine Baylis MacInnis, M. D., Columbia, S. C.

"Drug Allergy"—David Thomas, M. D., Augusta, Ga.

"The Steroids and their effects on various Immunological and Allergic Reactions"—Carl E. Arbesman, M. D., Buffalo, N. Y., Pres. American Academy of Allergy.

"The Allergist, the Otolaryngologist, and the Patient"—Theo. E. Walsh, M. D., Prof. of Otolaryngology, Washington University.

"A New Look at Allergy"—Charles P. Wofford, M. D. in collaboration with John B. McKinnon, M. D. and Ben D. Hall, M. D., Johnson City, Tenn.

"The Changing Picture of Allergy"—Ethan Allan Brown, M. D., Boston, Mass., Pres. American College of Allergists.

**AFTERNOON SESSION**

Chairman, Charles P. Wofford, M. D.

2:00 P. M.

"Bronchial Asthma with Complications"

Discusser: Oscar C. E. Hansen-Pruss, M. D., Pro-

fessor of Medicine, Duke University Medical School.  
Necropsy Discussion: Gordon R. Hennigar, M. D.,  
Associate Professor of Pathology, Medical College of  
Virginia.

Panel on Pediatric Allergy—Lewis D. Hoppe,  
M. D., Atlanta.

"The Pediatrician and Preventive Measures"—  
Mary Margaret McLeod, M. D., Sanford, N. C.

"Allergic Dermatitis in Children"—G. Frederick  
Hieber, M. D., St. Petersburg, Fla.

"Psychiatric Aspects of Allergy in Pediatrics"—Olin  
Shivers, M. D., Atlanta, Ga.

Banquet  
October 6, 1956  
9:00 A. M.

Panel: "Role of Chronic Lung Disease in Chronic  
Asthma"—Moderator, Oscar Swineford, Jr., Professor  
of Internal Medicine, University of Virginia Hospital.

"Physiology of Normal Breathing"—Changes pro-  
duced by chronic lung diseases—Kelly T. McKee,  
M. D., Associate Professor of Medicine, Medical Col-  
lege of S. C.

"Pathogenesis and description of the Chronic Lung  
Diseases Associated with Wheezing"—John L. Guer-  
rant, M. D., Associate Professor of Internal Medicine,  
University of Virginia Hospital.

"Differential Diagnosis of Asthma Due to Allergy,  
Infection, and Chronic Lung Disease"—Alexander  
McCausland, M. D., Roanoke, Va.

"Medical Treatment of Chronic Lung Diseases:  
Antibiotics, Allergy, Spasmolytics, Postural Drainage,  
Expectorants"—Ben Miller, M. D., Columbia, S. C.

"Surgical Treatment of Chronic Lung Diseases  
Which Cause Asthma; Bronchoscopy, Excision of  
Tumors, lobes, cysts, nerve resection, etc."—William  
A. Hopkins, M. D., Atlanta.

This program has been accepted by the American  
Academy of General Practice for ten hours credit in  
Category #2.

SOUTHEASTERN STATES CANCER SEMINAR

NOVEMBER 7 and 8, 1956  
Jacksonville, Florida  
George Washington Hotel

MORNING, FIRST DAY

Early recognition and treatment of

Breast Tumors . . . . Dr. Everett D. Sugarbaker

Treatment of recurrent and late

Carcinoma of the Breast . Dr. Elliott Scarborough

The value of extended surgery for

Carcinoma of the Breast . Dr. Everett D. Sugarbaker

Panel discussion on management of Carcinoma of the  
Breast.

- (1) Dr. Everett D. Sugarbaker—Chairman
- (2) Dr. James Elliott Scarborough
- (3) Dr. Eugene P. Pendergrass
- (4) Dr. William Meissner

Radiological Aspects of Malignant

Tumors of the Lung . . Dr. Eugene P. Pendergrass

Surgical Aspects of Malignant Tumors  
of the Lung . . . . . Dr. Alton Ochsner

AFTERNOON

The role of Cytology in early diagnosis of malignancies.

- (1) Dr. Emerson Day—Chairman
- (2) Dr. Cyrus C. Erickson
- (3) Dr. Ruth M. Graham

Treatment of Carcinoma

of the Cervix . . . . . Dr. Willard Allen

Panel discussion on Female Genital Neoplasm, other  
than Carcinoma of the Cervix.

- (1) Dr. Willard Allen—Chairman
- (2) Dr. Emerson Day
- (3) Dr. Cyrus C. Erickson
- (4) Dr. Ruth M. Graham
- (5) Dr. William Meissner
- (6) Dr. Eugene P. Pendergrass
- (7) Dr. James Elliott Scarborough

Tumor Chemotherapy . . . . Dr. Alfred Gellhorn

MORNING, SECOND DAY

Carcinoma of the Stomach . . Dr. George T. Pack

Incidence, detection, and management

of Polyps of the Colon and  
Rectum . . . . . Dr. Michael R. Deddish

The role of Radiology in early detection

of Colonic Tumors . . . . Dr. Robert D. Moreton

Recent advances in management of

Cancer of the Colon . . . Dr. Richard B. Cattell

Panel discussion on diagnosis and treatment of Car-  
cinoma of the Colon and Stomach.

- (1) Dr. Michael R. Deddish—Chairman
- (2) Dr. Richard B. Cattell
- (3) Dr. William Meissner
- (4) Dr. Robert D. Moreton
- (5) Dr. George T. Pack

Precancerous skin lesions, Hemangioma,

Cutaneous Carcinogenic effect of  
sunlight, and Basal Cell

Epithelioma . . . . . Dr. George Clinton Andrews

AFTERNOON

Tumors of soft tissues . . . . Dr. George T. Pack

Squamous Cell Epithelioma and

Melanoma . . . . . Dr. George Clinton Andrews

Panel discussion on Tumors of the skin and subcu-  
taneous tissue.

- (1) Dr. George Clinton Andrews
- (2) Dr. George T. Pack

Carcinoma of the Larynx: present concept

of management . . . . . Dr. Danely P. Slaughter

Surgery and radioactive iodine in

management of Tumors

of the Thyroid . . . . . Dr. Edgar L. Frazell

Panel discussion on Tumors of the head and neck.

- (1) Dr. James Elliott Scarborough—Chairman
- (2) Dr. Richard B. Cattell
- (3) Dr. Edgar L. Frazell
- (4) Dr. William Meissner
- (5) Dr. Danely P. Slaughter

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# WOMAN'S AUXILIARY

## SOUTH CAROLINA MEDICAL ASSOCIATION

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President: Mrs. E. Gordon Able, Newberry, S. C.

Bulletin Secretary: Mrs. Ritchie Belser, Charleston, S. C.

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1956-1957

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Mrs. D. O. Winter, Sumter, S. C.

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Pickens (17)  
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#### SOUTH CAROLINA STATE AUXILIARY WINS AWARD AT NATIONAL CONVENTION

AMEF awards to the ten State groups who made the highest income per capita fund raising record was made at the Annual Luncheon Meeting of the Woman's Auxiliary to the American Medical Association on Wednesday, June 13, 1956 in the Grand Ballroom of the Conrad Hilton Hotel in Chicago. Making the presentation was Dr. G. F. Lull, AMA Secretary-General. Number six with \$1.87 per capita, was South Carolina. Highest praise goes to those who had a part in this achievement.

Among the County Auxiliary winners in the 1955-56 Subscription Contest to Today's Health were three South Carolina County Auxiliaries. In Group I of the More Exclusive Club is Newberry County with 250% of their contest quota. Placing in Group I of the 1956 Exclusive Club was Pickens County with 119% of their Contest Quota. And the Pee Dee Auxiliary was among those in Group III of the 1956 Exclusive Club. Congratulations to the splendid showing these groups made.

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#### REPORT ON ACTIONS OF THE HOUSE OF DELEGATES AMERICAN MEDICAL ASSOCIATION 105th ANNUAL MEETING JUNE 11 - 15, 1956 CHICAGO

CHICAGO, June 15 — Hospital accreditation, evaluation of graduates of foreign medical schools, private practice by medical school faculty members, federal aid to medical education and premature publicity on new drugs were among the major subjects acted upon by the House of Delegates at the American Medical Association's 105th Annual Meeting held June 11 - 15 in Chicago.

Dr. David B. Allman, surgeon of Atlantic City, N. J., was named unanimously as president-elect for the coming year. A member of the A. M. A. Board of Trustees since 1951 and also chairman of the Committee on Legislation, Dr. Allman will become president of the American Medical Association at the June, 1957, meeting in New York City. He will succeed Dr. Dwight H. Murray of Napa, Calif., who took office at the Tuesday evening inaugural program in the Chicago Civic Opera House.

The House of Delegates selected Dr. Walter L. Bierring of Des Moines, Iowa, as recipient of the

1956 Distinguished Service Award of the American Medical Association for his long and outstanding contributions to medicine and humanity. Dr. Bierring, a past president of the A. M. A., was honored for his achievements in the fields of public health and medical examining board work. He formally accepted the award at the Tuesday inaugural program.

#### *Hospital Accreditation*

The House of Delegates approved the report of the Committee to Review the Functions of the Joint Commission on Accreditation of Hospitals, which was appointed by the Speaker as a result of action taken at the June, 1955, meeting. The Committee came to the following conclusions:

"1. Accreditation of hospitals should be continued.

"2. The Joint Commission should maintain its present organizational representation.

"3. The Board of Trustees should report annually to the House of Delegates on the activities of the Joint Commission.

"4. Physicians should be on the administrative bodies of hospitals.

"5. General practice sections in hospitals should be encouraged.

"6. Staff meetings required by the Joint Commission are acceptable, but attendance requirements should be set up locally and not by the Commission.

"7. The Joint Commission should not concern itself with the number of hospital staffs to which a physician may belong.

"8. The Joint Commission is not and should not be punitive.

"9. The Joint Commission should publicize the method of appeal to hospitals that fail to receive accreditation.

"10. Reports on surveys should be sent to both administrator and chief of staff of hospital.

"11. Surveyors should be directly employed and supervised by the Joint Commission.

"12. Surveyors should work with both administrator and staff.

"13. New surveyors should receive better indoctrination.

"14. Blue Cross and other associations should be requested not to suspend full benefits to non-accredited hospitals until those so requesting have been inspected.

"15. The American Medical Association should conduct an educational campaign for doctors relative to the functions and operations of the Joint Commission.

"16. The Committee also suggests that the American Medical Association and the American Hospital Association encourage educational meetings for hospital boards of trustees and administrators either on state or national levels to acquaint those bodies with the functions of accreditation.

"17. This Committee asks to be discharged upon submission of this report to the House of Delegates."

The House also approved a reference committee suggestion that the following statement be added to strengthen the report:

"The Committee recommends that the commissioners to the Joint Commission on Accreditation of Hospitals, appointed by the Board of Trustees of the American Medical Association, urge that Commission to study:

"1. The problems of the exclusion from hospitals and arbitrary limitation of the hospital privileges of the general practitioner, and

"2. Methods whereby the following stated principles may be achieved:

" 'The privileges of each member of the medical staff shall be determined on the basis of professional qualifications and demonstrated ability.'

" 'Personnel of each service or department shall be qualified by training and demonstrated competence, and shall be granted privileges commensurate with their individual abilities.'

#### *Graduates of Foreign Medical Schools*

The House of Delegates approved in principle a program for the evaluation of graduates of foreign medical schools seeking hospital positions in the United States. The proposed program was developed by the Cooperating Committee on Graduates of Foreign Medical Schools, representing the A. M. A. Council on Medical Education and Hospitals, American Hospital Association, Association of American Medical Colleges and Federation of State Medical Boards of the United States.

The following principles were emphasized by the Council on Medical Education and Hospitals in its report recommending A. M. A. participation in the program:

"1. Although the responsibility to share opportunities in medicine is recognized, the primary concern must be for the health care of the American public. Thus, before assuming responsibility for the care of patients as interns or residents, all graduates of foreign medical schools (immigrants, exchange students and American graduates of foreign medical schools) should give evidence, as nearly as can be measured, of having reached a level of educational attainment comparable to that of students in American schools at the time of graduation.

"2. The primary objective of this Committee is to devise an effective mechanism for measuring educational attainment in the absence of intimate and continuing knowledge of the educational background of foreign-trained physicians. This mechanism should provide hospitals with pertinent information regarding the medical qualifications of foreign-trained physicians seeking positions as interns or residents. It should not interfere with the hospital's privilege of making its own selection among qualified physicians, nor should it serve as a substitute for or interfere with the normal licensure procedures of the various state boards.

"3. It is not intended that this mechanism be applicable to those foreign medical school graduates in

this country as temporary students participating in programs of medical and related studies in recognized universities, medical schools and postgraduate schools, who by the very nature of their study are not involved in the responsibility of patient care."

The proposed plan calls for establishment of a central administrative organization to evaluate the medical credentials of foreign trained physicians desiring to serve as interns or residents in American hospitals. Basic requirements would include satisfactory evidence of at least 18 years of total formal education, including a minimum of 32 months in medicine exclusive of any time which in this country would be considered as premedical study or internship. Applicants with satisfactory credentials then would take a screening examination to determine their medical knowledge and their facility with the English language. Successful applicants then would be certified to hospitals and other interested organizations, with the approval of the foreign-trained physician concerned.

#### *Private Practice by Medical School Faculty Members*

Another major action by the House involved the problem of private practice by medical school faculty members, which has been under study by the Committee on Medical and Related Facilities of the Council on Medical Service. The House adopted a Council report which stated "that it shall be the policy of the American Medical Association that funds received from the private practice of medicine by salaried members of the clinical faculty of the medical school or hospital should not accrue to the general budget of the institution and that the initial disposition of fees for medical service from paying patients should be under the direct control of the doctor or doctors rendering the service."

It was further recommended that adequate liaison be developed and maintained between each county medical society and any medical school or schools in its area; that the Council on Medical Education and Hospitals and the Association of American Medical Colleges urge all medical schools to assist and work with medical societies in developing such liaison, and that publicity emanating from a medical school should be in good taste and of a type which has the approval of the general medical community in that area.

The adopted report also said: "It is not in the public or professional interest for a third party to derive a profit from payment received for medical services, nor is it in the public or professional interest for a third party to intervene in the physician-patient relationship."

#### *Federal Aid to Medical Schools*

One of the most controversial subjects of debate on the floor of the House was a resolution expressing strong opposition to S. 1323, a bill in Congress providing for one-time, matching grants to medical schools for construction purposes. The Association in recent years has been supporting such legislation in principle, with certain reservations concerning details of some provisions. The House reaffirmed that

policy by approving a reference committee statement which said:

"We appreciate the intent with which this resolution was introduced, but at the same time we feel that there are many economic and geographical factors involved, which might not make this resolution practical on a national level. Inasmuch as no evidence was offered to this Committee to justify a change in the previously declared policy of the House of Delegates, your Committee recommends that this resolution be not adopted."

#### *Premature Drug Publicity*

The House adopted a substitute resolution which read:

"Whereas, In recent years, events have indicated the necessity for a closer liaison between the pharmaceutical manufacturer and the American Medical Association; and

"Whereas, In view of the tremendous number of new drugs being developed and the expanding research programs in medical colleges, clinics and hospitals being financed by the drug industry, it is imperative that the manufacturer and the medical profession develop cooperatively guiding principles which will protect the American people from being subjected to the premature release of information pertaining to new products or techniques; and

"Whereas, Competition within the pharmaceutical industry has become extremely keen so that in the advertising of their products drug manufacturing firms have been forced into the expenditure of larger and larger sums of money and in increasingly broader fields of advertising; therefore be it

"Resolved, That the Board of Trustees of the American Medical Association appoint liaison committee to meet with representatives of the pharmaceutical manufacturers to accomplish this objective."

#### *Miscellaneous Actions*

Among many other actions on a wide variety of subjects, the House also:

Approved a Board of Trustees statement on Social Security which included the following: "It is imperative that we distinguish clearly between this problem of coverage of physicians and the far more dangerous disability proposal. The fact should be recognized that the shape of medical practice in the future is not directly related to the inclusion or exclusion of physicians under OASI. It is a matter of vital importance to us as individuals, but it cannot, per se, stimulate further government intrusion into medical care. On the other hand, the disability amendment obviously brings the Social Security Administration closer to the regulation of medical care than ever before."

#### *Opening Session*

At the Monday opening session Dr. Elmer Hess, outgoing A. M. A. President, warned that the medical profession must be prepared to face an all-out drive by some labor groups for national compulsory health

insurance. Dr. Dwight H. Murray, then President-Elect, told the House that general practitioners and specialists must guard against "any cleavage within our profession," and he urged strength through unity.

Dr. Lowell T. Coggeshall, special assistant to Secretary Marion B. Folsom of the U. S. Department of Health, Education and Welfare, assured the House that the over-all medical objectives of HEW are in accord with those of the A. M. A. A memorial plaque honoring the late Dr. Carl M. Peterson, secretary for 17 years of the A. M. A. Council on Industrial Health, was presented by Dr. Ross McIntire on behalf of the President's Committee on Employment of the Physically Handicapped. The Illinois State Medical Society presented a check for \$164,940 to the American Medical Education Foundation.

#### *Inaugural Program*

Dr. Murray, in his inaugural address at the Tuesday evening ceremony in the Chicago Civic Opera House, declared that "what we need most in medicine today is to find some way of combining modern scientific methods with the personal, friendly touch of the old-time family doctor."

George F. Lull, M. D.

Secretary-General Manager

American Medical Association

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## BOOK REVIEWS

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*NEW AND NONOFFICIAL REMEDIES 1956.* J. B. Lippincott Company, East Washington Square, Philadelphia 5, Pa. \$3.35.

This invaluable little book shines like an honest beacon in a welter of half-baked articles and extravagant advertising claims for new drugs. This edition sheds better light on the subject by following the method of the AMA Council on Pharmacy and Chemistry (of which it is a product) in furnishing more complete coverage of current information on drug therapy. Technical pharmaceutical information is at a minimum, and clinical use is emphasized.

It should be an essential volume for every clinician.

J. I. Waring, M.D.

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*THE MORPHOLOGY OF HUMAN BLOOD CELLS.*

By L. W. Diggs, Dorothy Sturm, and Ann Bell.

W. B. Saunders Co. 1956. 181 pages. Price \$12.00.

This manual is written for the laboratory technician and medical student interested only in the identification of cells of peripheral blood or bone marrow. It is divided into sections dealing with morphological characteristics of normal and abnormal red cells, white cells, and cells found only in the bone marrow. The final chapter, which deals with staining methods and a few specialized techniques, is merely a repetition of that found in any good text of hematology.

The color plates show water color reproductions of cells and serve to emphasize that the only way to learn to identify cells is through the microscope. The illus-

CORRECTS MOST TYPES OF CONSTIPATION

# Metamucil®

## Blends with the Intestinal Contents, Soothes the Mucosa

*Metamucil is highly refined;  
it stimulates the bowel  
musculature, not the mucosa.*

When you specify Metamucil in constipation management you are selecting a product which has been made at least 99.6 per cent pure through a complete process of refinement.

All possible irritants (rough parts of the psyllium seed, undesirable oils and similar materials) are discarded during the refining process. A relatively small quantity of purified mucilloid powder is the result. To this is added an equal weight of pure anhydrous dextrose to insure complete dispersion in the colon.

Such meticulous preparation assures that only the bulk-producing mucilloid portion of the psyllium seed remains and that Metamucil will act as a purely "physiologic" constipation corrective, providing bland distention to stimulate the bowel muscularis.

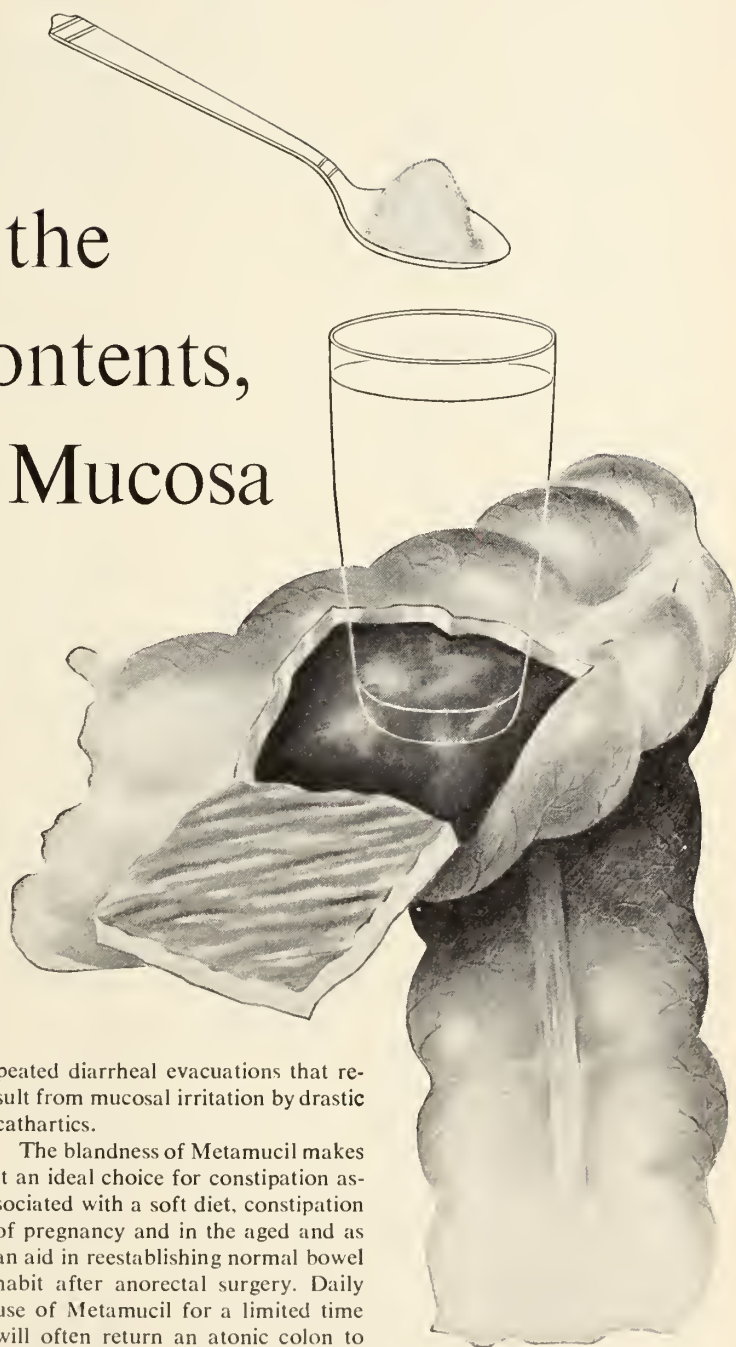
The Metamucil mixture (formed by adding water to Metamucil) elicits gentle colonic reflex peristalsis. Evacuations are normally formed and are not irritating. The bowel stimulation imparted by Metamucil is only sufficient to clear the colon of its contents; patients are not annoyed by the re-

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The blandness of Metamucil makes it an ideal choice for constipation associated with a soft diet, constipation of pregnancy and in the aged and as an aid in reestablishing normal bowel habit after anorectal surgery. Daily use of Metamucil for a limited time will often return an atonic colon to normal function.

Metamucil® is the highly refined mucilloid of *Plantago ovata* (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent. It is supplied in containers of 1 pound—also 4 ounces and 8 ounces.

G. D. Searle & Co., Chicago 80, Illinois, Research in the Service of Medicine.



SEARLE

trations are well done and faithfully reproduced but do not look like the peripheral blood and bone marrow cells seen through the microscope.

This atlas can not be recommended for student or technician use.

CHARLTON DESAUSSEURE, M.D.

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*PHYSICAL DIAGNOSIS* by Ralph H. Major, M. D. and Mahlon H. Delp, M. D. 5th edition; 358 pp. W. B. Saunders Co., Philadelphia. \$7.00.

For those who feel that a Textbook of Physical Diagnosis is a necessary evil, this fifth edition of Major's book would be entirely acceptable. With his co-author, Mahlon H. Delp, many portions of this work, now a standard in many medical schools, have been rewritten and rearranged. There are new photographs which are excellent but still many older photographs which might be considered outdated. The illustrations are well done. The chapter on history taking and recording, now given a deserved prominent place, represents the basic, although stereotyped, approach to the patient taught to the sophomore and junior medical student. The bibliography at the end of each chapter is adequate and emphasizes original contributions, many of which would be difficult for the average librarian to locate.

In general the book does what it sets out to do. It is properly an introduction to physical diagnosis for the student of medicine. It is not an encyclopedia in scope. The authors have been influenced by a reverence for the historical aspect of medicine in general, and Friedrich Muller as a teacher of physical diagnosis in particular. They have quite correctly avoided the use of the accessory clinical aids such as fluoroscopy, electrocardiography, hematologic examinations and the like, emphasizing the use of the five senses in diagnosis.

Clinical diagnosis in its broadest dimensions must employ fine sensibilities and new modalities. However, textbooks of physical diagnosis are still basic training and this book commends itself to the medical student.

Ralph Coleman, M. D.

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*A MODERN PILGRIM'S PROGRESS FOR DIABETICS* by Garfield G. Dunnean, M. D., Clinical Professor of Medicine, Jefferson Medical College. 222 pp. W. B. Saunders Co., Philadelphia. \$2.50.

This little book, entitled "A Modern Pilgrim's Progress for Diabetics" by Dr. Garfield G. Dunnean of Philadelphia is written in the vernacular for patients to learn something about their disease. The material is presented in the form of a story; a young diabetic social worker begins her work in the diabetic clinic of a large metropolitan hospital and the story is unfolded as she encounters patients with the many various problems and complications of diabetes. The different questions are presented in a form in which they can be easily understood by the patient, the

suggestions are entirely sound from a medical point of view, and nothing of a radical nature is presented.

In the appendix are many useful suggestions, directions for the various technical procedures which diabetics must learn, and a number of helpful dietetic tables and recipes. Altogether it is a very useful handbook which might, with considerable advantage, be recommended to diabetic patients; it also contains enough useful information for the doctor who treats diabetics to make it worth his while to review many of these pertinent facts.

Robert Wilson, M. D.

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*THE MANAGEMENT OF MENSTRUAL DISORDERS* By C. Frederic Fluhmann, B. A., M. D., C. M. W. B. Saunders Co., Philadelphia, 1956. Price \$8.50.

The author is clinical professor of obstetrics and gynecology, Stanford University School of Medicine. This monograph supersedes an earlier one by the same author published in 1939. Knowledge of the action of the sex hormones has increased, their commercial preparation has improved, and their clinical application has stabilized greatly in 25 years.

The book was written primarily for general practitioners who attempt to treat menstrual disorders. In the first four chapters, it presents in logical sequence a historical review of the concept of menstruation, a discussion of gonadotropins and steroid hormones which give rise to and regulate menstruation, and discusses its neural and endocrine control.

There follows a description of the characteristics of the menarche and of the menstrual disorders of adolescence. Next the author discusses the menstrual cycle and the systemic changes and disorders which go with it. The ovarian cycle and the disorders which may accompany ovulation and the uterine cycle with accompanying changes in the vulva, vagina, fallopian tubes and mammary glands are all described and correlated.

These chapters are informative, but the average general practitioner will not find them either very interesting or very helpful. However, the rest of the book, he will find interesting and very practical. The disorders of menstruation and uterine hemorrhage are clearly classified and described, and treatment is critically discussed. Dysmenorrhea and the climacteric are treated similarly. One chapter is devoted to detailed description of the treatment of abnormal uterine bleeding, and the final chapter lists and describes many of the commercial preparations of the sex hormones.

The style of the book is concise and scholarly, the illustrations are fine, and there is a detailed index. The entire subject is presented fairly with due regard to differences in attitude and practice.

J. Deeherd Guess, M. D.

PROGRESS IN HEMATOLOGY. Volume I. 1956.  
Edited by Leandro M. Tocantins. Grune and  
Stratton, Inc. New York. 336 pages. Price \$9.75.

Hematology has advanced with rapid strides in the past five years and this group of papers in an attempt to correlate and bring up to date many of these newer concepts. A very able group of contributors has covered sixteen topics ranging from abnormal hemoglobins to chemotherapy of leukemia in a manner easy to understand by the physician with only a passing interest in hematology.

The accounts of newer therapy with parenteral iron and radioactive phosphorous are worth while reading for anyone concerned with the treatment of iron deficiency anemias or polycythemia. The use of exchange transfusions in erythroblastosis fetalis and the mechanism of production of acute fibrinogen deficiencies should be read with interest by pediatricians and obstetricians. Other topics of a more investigational nature are well covered.

This book is highly recommended for the practicing physician, and it is hoped that it will be a yearly publication.

CHARLTON DESAUSSURE, M.D.

DUES AND SPECIAL ASSESSMENTS OF STATE SOCIETIES		
	Dues	Comments
Alabama	\$20.00	Dues \$50.00 as of 1/1/57
Arizona	\$60.00	Dues \$70.00 as of 1/1/57 \$10.00 for AMEF
Arkansas	\$25.00	
California	\$50.00	
Colorado	\$50.00	
Connecticut	\$28.00	
Delaware	\$50.00	
Florida	\$40.00	
Georgia	\$25.00	
Idaho	\$40.00	
Illinois	\$40.00	\$20.00 for AMEF in dues.
Indiana	\$30.00	
Iowa	\$60.00	\$25.00 increase authorized but not yet levied.
Kansas	\$40.00	
Kentucky	\$35.00	
Louisiana	\$50.00	
Maine	\$35.00	Planned to raise dues to \$60.00 this June.
Maryland		
Baltimore City	\$50.00	
County Society	\$30.00	
Massachusetts	\$35.00	
Michigan	\$45.00	
Minnesota	\$40.00	

Mississippi	\$35.00	Dues to be increased \$5.00 per year for three years.
Missouri	\$25.00	
Montana	\$53.50	
Nebraska	\$35.00	
Nevada	\$100.00	
New Hampshire	\$40.00	
New Jersey	\$30.00	
New Mexico	\$70.00	
New York	\$25.00	
North Carolina	\$40.00	
North Dakota	\$75.00	
Ohio	\$20.00	Dues \$25.00 on 1/1/57
Oklahoma	\$42.00	
Oregon		
Pennsylvania	\$40.00	
Rhode Island	\$50.00	
South Carolina	\$20.00	
South Dakota	\$75.00	
Tennessee	\$25.00	
Texas	\$50.00	
Utah	\$50.00	
Vermont	\$35.00	
Virginia	\$25.00	
Washington	\$35.00	
Washington, D. C.	\$50.00	
West Virginia	\$25.00	
Wisconsin	\$65.00	
Wyoming	\$25.00	

RECOVERY

In modern medicine there seems but little room left for spontaneous recovery. The idea of a healing power of nature, once cherished by generations of physicians has become obsolete. The life of modern man does not allow of an expectant treatment. Modern man, pushed from all sides, professional and private, into a heated competition and living in a state of permanent insecurity and anxiety, wants to be treated as fast as possible with a minimum loss of working hours and income. Still, we are taught that certain diseases need years, if not the whole life, to develop; the intention and the promise to undo this development and to cure by a limited number of convulsive states, let us say, must lead to confusion. But so strong is the tendency towards rapid cure that man is ready as never before to give up his most precious and most human endowment, i. e., his consciousness, to pass into coma and to sacrifice his physical integrity, provided he is given the hope to find relief from pain and melancholy. The physician may not realize that he is not always free in his therapeutic devices, and the public may not know that it is putting heavy demands on the physician's selection of treatments which we like to consider as purely biological in origin and design. I submit that there is always a mutual indebtedness of public and physician.

Walther Riese, *Bull. of The Hist. of Med.* 30:170.

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# SCISSORISMS

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A WORD FOR CONSULTANTS  
*From Goodlye Doctrine and Instruction*  
by John Halle (1529-1566)

*When thou arte calld at anye time,  
A patient to see;  
And doste perceave the cure too grate,  
And ponderous for thee:*

*See that thou laye disdeyne aside,  
And pride of thine owne skylle;  
And thinks no shame counsell to take,  
But rather wyth good wyll.*

*Gette one or two of experte men,  
To helpe thee in that nede;  
And make them partakers wyth thee,  
In that worke to procede.*

*... But one thing note, when tow or moe  
Together joynd be;  
Aboute the paynfull patient,  
See that ye doe agree.*

*See that no discords doe arise,  
Nor be at no debate;  
For that shall sore discomforte hym,  
That is in sycke estate.*

*For noughte can more discomforte him,  
That lies in griefe and peyne,  
Than heare that one of you dothe beare  
To other such disdeine.*

*Wherefore what so ye have to saye,  
In thinges about your arte;  
Let it be done among yourselves,  
In secrete and a parte.*

*With one consent uniformly  
Comforte the wounded man;  
But unto good friends of hys  
Express all that ye can . . .*

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## DEMOCRATIC PLATFORM ON SOCIAL SECURITY AND HEALTH

The general welfare plank of the Democratic Party platform opens with the following: "The Democratic party believes that America can and must adopt measures to assure every citizen an opportunity for a full, healthy and happy life. To this end, we pledge ourselves to the expansion and improvement of the great social welfare programs inaugurated under Democratic administration." It then spells out a number of areas of particular interest to physicians. They include:

*Social Security*—"By lowering the retirement age for women and for disabled persons, the Democratic

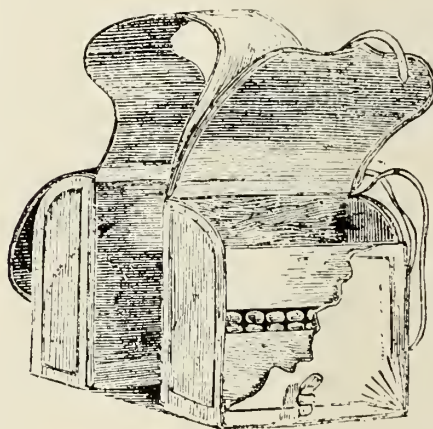
Eighty-fourth Congress pioneered two great advances in Social Security, over the bitter opposition of the Eisenhower Administration. We shall continue our efforts to broaden and strengthen this program by increasing benefits to keep pace with improving standards of living; by raising the wage base upon which benefits depend, and by increasing benefits for each year of covered employment."

*Health and Medical Care*—"The strength of our nation depends on the health of our people. The shortage of trained medical and health personnel and facilities has impaired American health standards and has increased the cost of hospital care beyond the financial capacities of most American families. We pledge ourselves to initiate programs of Federal financial aid, without Federal controls, for medical education. We pledge continuing and increased support for hospital construction programs, as well as increased Federal aid to public health services, particularly in rural areas."

*Medical Research*—"Mindful of the dramatic progress made by medical research in recent years, we shall continue to support vigorously all efforts, both public and private, to wage relentless war on diseases which afflict the bodies and minds of men. We commend the Democratic party for its leadership in obtaining greater Congressional authorizations in this field."

*Physically Handicapped*—"There are today several million physically handicapped citizens, many of whom could become self-supporting if given the opportunity and training for rehabilitation. We pledge support to a vastly expanded rehabilitation program for these physically handicapped, including increased aid to the states, in contrast to the grossly inadequate action of the Republican Administration."

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# The Journal

of the

## South Carolina Medical Association

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## THE PROPHYLAXIS OF EMOTIONAL ILLNESS

JAMES T. PROCTOR, M. D.  
Chapel Hill, North Carolina

I would like to tell you an anecdote which came to my attention through a friend: "In spite of the earnest entreaties of several professors at the University of North Carolina, Chapel Hill's aldermen stormily refused to repeal a town ordinance barring jackasses from the public streets. One professor went so far as to beg the aldermen to remember that they were once young themselves." I find this amusing as do many of you, but in it as there is in so much humor, there is some real truth. We all tend to look upon our children and adolescents as fools or asses, instead of taking the more realistic view that they are actually developing individuals, struggling with problems that are difficult for them. They need understanding and support, not condemnation or depreciation.

In a more serious vein, the topic I would like to discuss with you is that of the prophylaxis of mental illness, or the prevention of mental illness, which stated another way is mental hygiene, either as applied to the individual or as applied to various institutions to prevent emotional illness or pathology. The magnitude of the problem is tremendous. It is estimated that 52% of the hospital beds in this country are occupied by people suffering from an emotional illness, which hospital population is cared for by something less than 5% of the doctors. At any given time there are

over 600,000 people hospitalized for emotional illness and it has been estimated that roughly one person in ten will spend some time during the course of his life hospitalized for an emotional disturbance. In some of the states in the Northeast which have the most adequate hospital facilities numerically, it is estimated that 1% of the population of those states is hospitalized sometime during the course of any particular year. All of this means, of course, that many patients will receive less than optimum care, no matter how hard we try to supply that care and no matter how well motivated we are; the supply of service simply cannot meet the demand.

The attack on mental illness is a twofold one, involving prevention of potential cases and treatment of cases already in existence. I would like to discuss with you something of both aspects. Our orientation will be particularly from the vantage of child psychiatry, which is my specialty, but also is an area in which we feel the words prevention or prophylaxis have particular meaning. My own work is primarily in the area of treatment, but often in child psychiatry that blends into prophylaxis and becomes indistinguishable from preventative psychiatry. The various matters we will discuss apply equally to emotionally well and disturbed children.

Speaking of treatment, I would like to tell you something of our facilities for children at Memorial Hospital as a typical example of child psychiatry in a teaching hospital which in ways is also characteristic of many child

Department of Psychiatry, University of North Carolina School of Medicine.

Paper presented at the Institute on Neurology and Psychiatry, Medical College of South Carolina, Charleston—May 23, 1956.

guidance and mental hygiene clinics.

At Memorial Hospital the child psychiatric service is an integral part of the total hospital and its elaborate facilities, but more specifically is a subdivision of the Psychiatric Outpatient Clinic. At this time, our work in child psychiatry is primarily outpatient in nature. However, in selected cases we hospitalize children for extensive diagnostic evaluations or short-term intensive therapy to prepare them for outpatient treatment, whereas they might not be able to tolerate outpatient treatment without intensive treatment under controlled conditions first. Our services in this area are limited primarily by the availability of time and personnel, but we do have four to five children at a time in the hospital under such a regime. The services we render are essentially threefold: diagnosis, treatment and teaching. In these functions we utilize the classic team approach, involving the psychologist, the psychiatric social worker and the psychiatrist. The psychiatric social worker in the team is particularly skilled in problems of child guidance and dealing with parents. She works initially with the parent or parents to obtain history and thus assists with the diagnosis. Later, she works therapeutically with the parents to help them understand the problems involved and to modify constructively their attitudes and behavior toward the child. The psychologist participates by using the microscope of psychological evaluation, the psychological test. The psychiatrist then brings his skills to bear upon the particular problems of the child. After an initial period of observation and data collection, these three members pool their information, formulate the diagnosis and plan of treatment. In an adequate continuing treatment program, frequent consultation between the team members is necessary to maintain mutual understanding and to achieve satisfactory treatment. Also, we have incorporated in our team the sociologist and anthropologist, who assist us to understand the social and economic factors involved in a given case or situation, especially those situations which deviate from the cultural patterns with which we are familiar and which are more or less out of our realm of adequate knowledge. The sociologist and anthropologist

are also of inestimable help in planning and carrying through various research projects, which is our department's fourth important function. Research in a narrow sense is not a medical service, but in a larger sense, research is the highest service function as in it lies the hope for greater success in mental hygiene. Although collateral to and secondary to the functions previously mentioned, we are able to offer consultation to other interested agencies such as various Departments of Public Welfare, the courts, the schools, etc. Today I will not go into the exact functioning of our clinic, but would like to point out that our goal when we invest ourselves in a case is the resolution of emotional illness in individuals who come to our attention. When a child is taken into therapy we customarily see the mother concurrently and frequently likewise involve the father. As an aside, I am reminded of a recent cartoon of two parents leaving the school principal's office. The father is commenting that he liked the old educational set-up better, when they disciplined the child instead of lecturing the parents. However, we ordinarily feel that treatment of the child is not really efficacious unless we can also reduce the intra-family tensions and alter the personal difficulties of the individuals therein, which factors are in large part responsible for the illness that brought the child to the clinic. In selected cases we do see the child alone, but this is usually in the older age groups.

The process of achieving wellness in a sick individual, adult or child, is a very complicated one, but consists essentially of the patient unlearning old, unsatisfactory modes of behavior and acquiring or learning new patterns that will give more personal satisfaction and bring the person into less conflict with the world about him. In this process, abreaction and desensitization are important tools. The patient needs to abreact, or react over again, to talk out his various problems. He needs to do this not once, but many times before he becomes desensitized, before he can tolerate the situation that has become so emotionally charged for him. In this process we frequently reassure where we feel we can realistically tell the patient matters are going to turn out all right, or where we can reassure that he is acting ap-

appropriately, etc. At times we can gently suggest or point out modes of reaction, operation or behavior that might be more effective for the person involved. However, all of these are really secondary to the acquisition of insight, that magic word which means the patient has learned the true reasons for his behavior and can modify his future life in view of this new knowledge, modify it in such a way that he can live happily and more adequately with himself and with those about him.

Real emotional wellness in an individual or family group is a goal we unfortunately do not often obtain, but is one for which we always strive. More often we are able to assist the family group to reach a degree of stability and wellness that will allow them to function in our society in an adequate fashion and remain relatively comfortable as individuals. When so briefly stated it all sounds very glib and casual, yet there are many difficulties involved, some of which are technical in nature, but the factors of time, money and personnel are not among the least. I might also point out something most of you know as well as I do, that there are many situations in which the social and economic conditions associated with the illness in the family are so severe that the situation is impossible or irremedial, at least from a practical standpoint, often from limitations of money and time. We have all seen such situations which cause us great distress and about which we feel guilty at times, castigating ourselves that had we handled the case or situation differently it would have worked out better. However, there are many cases that are essentially untreatable or alterable because of the degree of illness or because of social and economic factors, all of which are largely beyond our control.

However, let us return to our topic of prevention, which in a sense is concerned with meeting the mental health needs of the child, and in a broader sense, of all people. I have no real answers to the questions involved and I think that none of us should have exaggerated hopes that we are going to solve these matters in the near future. The problem is an overwhelming one and while psychiatry can offer advice in specific cases wherein the details and ramifications of that case are under-

stood, we are helpless and unable to make generalizations that will apply to people as a whole group. Mental hygiene is a movement created by and is a function of our society, society being one of the very forces which tends to produce the sort of illnesses we see. The morals, manners and mores of our group are important factors in emotional disturbances and when we attempt to apply those same morals, manners and mores to the correction of emotional disturbances, we immediately encounter a dilemma. Our institutions of education and family, which we all recognize as so important in mental hygiene, are in a sense our mores. In our society, the family and the family alone is allocated the privileges of procreating and raising children, raising them at least during their most plastic and formative years. It is during these years that the ground work for wellness or illness is laid and during which the educational processes are of the greatest importance. Here I refer to education in its broadest sense, by which I mean all types of interference with the spontaneous processes of development as they exist in the child. Children are not allowed to develop spontaneously, just as they will, as it is recognized that certain training or educational measures are necessary for the child to live in our society.

Psychiatric thought has gone through various phases in regard to mental hygiene. The first was a period of excessive optimism, in which all blame was placed on the environment and the parents as an important function of the environment, the concept being that if we corrected the environmental factors (such as sleeping arrangements, bans on sexual expressions, castration threats, abuse of authority, etc.) we would have a solution to the problem of mental illness. Important as these factors are, and they are very important, the early optimism has not been entirely justified. Later a stage of pessimism set in when it was realized that the origin of emotional disease was due, in part at least, to inevitable factors such as the insatiability of instinctual drives in the infant and young child, which must necessarily lead to painful deprivations and perhaps disease producing frustrations. Then there is the trauma of crucial life situations for

the infant such as weaning, toilet training and the birth of siblings, all of which may produce difficulties which are largely beyond our control. Also, there are the inevitable struggles which are an inseparable part of the very institution of the family itself: the growth process, involving at first identification with the parents and fantasies concerning those parents; later, individuation or separation from the parental figures, leading to maturity. No matter how perfect parents are, they cannot manage all of these things smoothly.

In the process of growth and maturation we hope that the uncontrolled impulsiveness of the infant will develop into reason by way of experience and various educational devices. It seems to me that one of the chief functions of education is to anticipate the pains and frustrations which must be experienced by everyone and to help the child to accept these in a graduated fashion rather than abruptly, which would almost certainly be detrimental. A very simple example of this would be that we must all learn to accept the fact our loved ones, important people about us, leave us for periods of time, but that they will return. The infant and very young child is delighted with the game of peek-a-boo, in which the person with whom he is playing disappears from sight for awhile, but then miraculously returns. A child will play this game endlessly, apparently trying to learn that people do come back even though they leave for awhile. Later, this is extended into games of hide and seek, which fulfill in part the same function. Fostering such play is helpful to the child, while leaving him abruptly for any length of time without preparation would almost certainly be very frightening to him.

In general, education should be directed toward more reasonableness, but often as applied it tends to become a hindrance to reason by overemphasizing social realities, things we must or must not do. Through education we may communicate to the child that all impulses or instincts are dangerous. By living in our society the child learns that uncontrolled expression leads to unpleasantness and by overemphasizing these features we are apt to inhibit too much.

One of the great goals of education is to

assist the child in sublimating many of his instinctual drives, but we err in thinking that suppression assists in that process. In therapy we frequently see sublimations occurring after repressions have been lifted, that is, after the child has relearned that some given impulse or feeling is not totally unacceptable. Identification with important people about the child seems to be an important factor in his learning to sublimate, so that the model presented should be carefully considered. We should look first to ourselves as parents and therapists, then to the parents of our patients and to other important people about any child, to see how these people indicate by example the method in which instinctual impulses are to be handled. For instance, a perhaps too simple example, is that a child must learn that his aggressivity cannot be expressed by beating on the head of the boy next door, but may be expressed by beating a tennis ball or golf ball.

In the constructive educative process we should, as a general rule, avoid unnecessary warnings about instincts and drives and should likewise avoid unnecessary excitations of those instincts and drives from without, which excitations might increase instinctual demands beyond the child's natural growth and his ability to handle and discharge tension produced. This is again well known as illustrated in the old admonition not to excite children too much before bedtime, or they will not sleep, will be restless and unmanageable; this simply means, if such occurs in a child, that he has been excited beyond his ability to discharge the tension or the excitation produced. There are many examples, but another common one has to do with children sleeping with the parents or siblings beyond the early years, especially siblings of the opposite sex or where there is too great disparity in age regardless of sex. If activities are selected which are in keeping with the child's level of development, he can discharge the accumulated tension and everyone is better off.

We have very few specific suggestions regarding child rearing, but I might mention those we feel can be specifically stated: Children should be spared sexual scenes involving adults; sexual seduction by adults or older children should be reduced as much as pos-

sible; direct castration threats should be prevented; we should train the child reasonably in matters of cleanliness and toilet functions, i. e., not too soon and not too strictly; the child should be prepared adequately in various manners for extraordinary life events such as the birth of siblings, operations, etc.; and above all we should try to understand the child's needs and govern our actions toward him by this understanding rather than by applying rigid, unreasonable discipline or rules of procedure.

These suggestions are very important, but are limited in their effectiveness as untoward events occur in spite of our best intentions. It is too facile to blame indiscriminately the father and mother for all of the child's wounds; blaming the mother if all of the child's needs are not cared for and blaming the father as the harsh authoritarian. However, the environment created for the child is of extreme importance and the chronic circumstances of environment which surround the child are much more important than any specific untoward event or trauma that occurs. In other words, the total mental surroundings are of crucial importance and any specific wound is of importance only as it is related to the total mental surroundings. If a child's environment is good and he feels loved and secure, he can bind considerable life difficulties; if the environment is poor and he feels unloved and insecure, a minimal trauma or wound may precipitate real difficulties. For example, comparison of sexual differences between children is an essentially normal process and can be an important step in learning, yet if the child's environment is such that matters of this sort are harshly and punitively forbidden, such an experience can be very upsetting to the child. Consequently, the mental hygiene value of any occurrence depends less on the content of that occurrence than on the total mental environment in which it occurs. The mental structure of the child, which is a function of his past and present life, determines to a large extent the gratifying or threatening effect of such events.

It is impossible to avoid frustration in the child's life and not only impossible, but also impractical to attempt protection from all

frustrations, as this prepares the child poorly for later life since we must all learn to live with certain frustrations. One area in which we perhaps prepare the child poorly for his future life concerns our attitude toward aggression. There is a great tendency to tell a child to "always be nice", to suppress and repress excessively all expressions of aggression. This leads to outer leniency on the part of an individual, yet also leads to intense conscience formation and perhaps a longing for external authority. For example, if a child is repeatedly forced to conform without being able to express or discharge his anger at being so forced, the anger tends to build up within him and because of this intense anger he feels very guilty, punishes himself because of the angry feelings which he has learned are unacceptable. Because of these intense angry feelings he may actually want someone outside himself to help him control those feelings which he fears may get out of control. Among many people there is the current impression that any expression of aggression is bad. While I do not know what is good and bad, it is apparent that the ability to act aggressively is necessary in many life situations.

As far as we know mental illness is not a biological necessity, but in one sense it is a social disease and those forms which we see result from the demands of our present civilization. However, no civilization as far as we know is without its own particular emotional problems and illnesses. The form emotional illness has taken in other times and places is different from those we currently see. For instance, within the life span of those living there seems to have been a shift in the type of illness from those of a more hysterical nature toward those that are more of a character disorder type, as perhaps typified by the adolescent's rebellions and at times delinquencies. In years gone by, Western European civilization has reported mental illnesses that we no longer see; e. g., the devil neuroses and the St. Vitus dance of a few hundred years ago. Exact details concerning these shifts are not known, but it is apparent that changes in emotional illness are concurrent with social evolution, changes in our ideas, attitudes, morals and mores. We do feel that there can

be no change in the nature or extent of emotional illnesses as we now see them without a concurrent change in the milieu so that the problem obviously becomes a social as well as a medical and psychiatric one. There is much investigation that needs to be done in this area and some research has been done.

Speaking of the milieu in which a child develops, his ideals, self-esteem, conscience formation, and the content and extent of his defenses are more a function of his total environment than they are of any direct teaching. This is another way of saying that a child develops into a product that is the result of the society in which he lives, that being the single largest factor although any particular individual in the environment may likewise be of considerable importance. I am sure it is obvious to you, but I would like to point out that the family is the child's most immediate and important environment. In our current society there seems to be a dissolution of the older type family that lived in one area and maintained ties from generation to generation, as well as family ties within the same generation; e. g., between brothers, sisters, cousins, etc. There is a new emphasis upon increased family mobility and a consequent disruption of ties from generation to generation as well as within the same generation which results in relative instability within the family. This puts great responsibility on the family head as there is tremendous emphasis on the necessity for him to assume total responsibility for the management of the family group (without any advice from "elder statesmen" within the family) and with further emphasis on his independence and ability to maintain his family group without any external help. With this great stress on independence, the family head really has no place he can turn to satisfy his own dependency needs, his regressive longing and needs to be cared for. This results in emotional conflict within the family head many times and likewise often results in symptom formation: a classic example might be the stomach ulcer in the apparently driving, aggressive, completely independent executive. Also, it almost seems that it is the mother's job to work herself out of a job. If she works very hard, raises her children adequately, allows

them to separate from her and leave her, then she no longer has a job and in a sense no longer has a really adequate position in our society. This is a situation that leads to real difficulties within the mothers and often causes considerable turmoil within adolescents, that is, children during the time they are trying to separate from the parents and stand on their own feet. Many mothers (and fathers) resist letting their children grow up, separate from and leave them, which situation is met by the adolescents' hostility and rebellion. I think all of these factors have an important place in our consideration of mental hygiene.

Mental hygiene, or whatever modifications might be suggested to alter or ameliorate the factors we have discussed, is limited because of the various individuals' frequent inability to follow the advice we give, either because of environmental factors or in the case of children specifically because of the parents, but more generally speaking because of the very structure of the society in which we live, including the neuroses of that society and of the individuals therein. In other words and for example, it is difficult for the parents of a child to alter his environment or their attitudes toward the child because they are intimately involved in and are an integral part of the problem as a whole.

There is much talk of the cause of emotional illness in our society. The poor are apt to say that emotional disorders are a luxury of the idle rich, while the more affluent group is prone to feel that emotional illness is a product of economic deprivation and misery. Of course, both ideas are wrong and are in essence group defenses. Misery may at times precipitate emotional illness, but it is doubtful that it ever actually causes emotional illness in the true sense. On the other hand we do know that real personal misery may replace an emotional illness and satisfy the same need previously satisfied by the illness, for example, the need for punishment. This is well exemplified by the notable absence of severe emotional illness in the concentration camps during the war, where the prisoners were undergoing tremendous deprivations and personal misery.

In general terms, I would like to discuss

briefly with you the matter of discipline, which in a sense is the application of frustrations and is a function of the child's education. The child needs and strives for social adjustment and internal security, requiring assistance to obtain those goals. The child does need limits to help him contain anxieties about controlling his inner impulses, to reassure him there are others who will control him if he cannot manage his own impulses, thereby offering him a measure of stability not otherwise obtained and thus leading to better social adjustment. If limits are not set for a child, he will often test to see how far he can go, his behavior becoming more and more provocative until someone is forced to set limits because the child may panic, become destructive, assaultive or otherwise unmanageable. The child will seek and demand limits, so that by setting reasonable bounds within which he must stay we can assist him in a constructive fashion. Limits should be as few as possible, but the limits should be firmly enforced.

Discipline is a word that is in bad repute. I think it is often, in part at least, confused with punishment of a hostile nature. However, discipline correctly applied assists the child to gain internal security and social adjustment and is a positive maneuver as far as the child's development is concerned. I think that constructive punishment (which is in essence a withdrawal of love) falls in the same category. Punishment administered in anger has little value for the child and is chiefly an expression of the parents' own frustration, the expression of which actually frightens the parent because of his previous conditioning about his own expression of aggression, making it more difficult for the parent to apply the various maneuvers of discipline, limits or punishment in a constructive fashion. I think it is these latter factors that make us all anxious about the whole matter of limits and discipline. Incidentally, I do not think that occasional corporal punishment hurts the child much and it may make the parent feel a great deal better.

Discipline is in many ways a repressive process, directed in one way or another toward the child's instinctual drives. As previously noted, it is important that we not totally repress the child's instinctual drives, but when

we must repress or discipline, we should leave outlets for those drives in other channels or areas and should indicate to the child that there are other ways of reacting and other outlets than those which we feel we have to suppress. I would like to remind you of the comments about the expression of aggression in this regard. Allowing the child outlets in a socially acceptable way produces less guilt in the child, tends to bolster his self-confidence, leads to greater reason within the child, greater independence and ability to act. Also if such concepts are applied early in the child's life and rearing, it will lead to a more adaptable character structure with fewer unmodifiable, primitive character traits or patterns.

In passing I would like to point out the importance of the educator's or parent's unconscious. Ideas may be unconsciously communicated to the child that are exactly opposite to the consciously stated intentions, which often leads to undesirable social activity, delinquency, etc. For example there is the parent who ostensibly does not want his child to engage in any sexual behavior, yet constantly questions the child about his sexuality, intimating in this fashion that he expects the child to have sexual experiences. Another example is that of a small child who ran away frequently. His father also ostensibly disapproved of this, yet questioned the child in great detail about his experiences during the period he was away from home, the father obviously vicariously enjoying the child's daring escapades. The child, of course, sensed this and realized that in spite of father's protests, father actually enjoyed the situation. This factor of parents or other important people about the child unconsciously communicating ideas almost unknown to themselves is one of tremendous importance and one which I am sure you have seen in your own work, but is a topic unto itself and one to which I only want to allude at this time.

I would like to pay my respects to this group and again tell you how much I have enjoyed speaking to you. This group represents a positive force for mental hygiene in South Carolina, and I hope I have been of some help in broaching a few of the problems. Thank you for your attention.

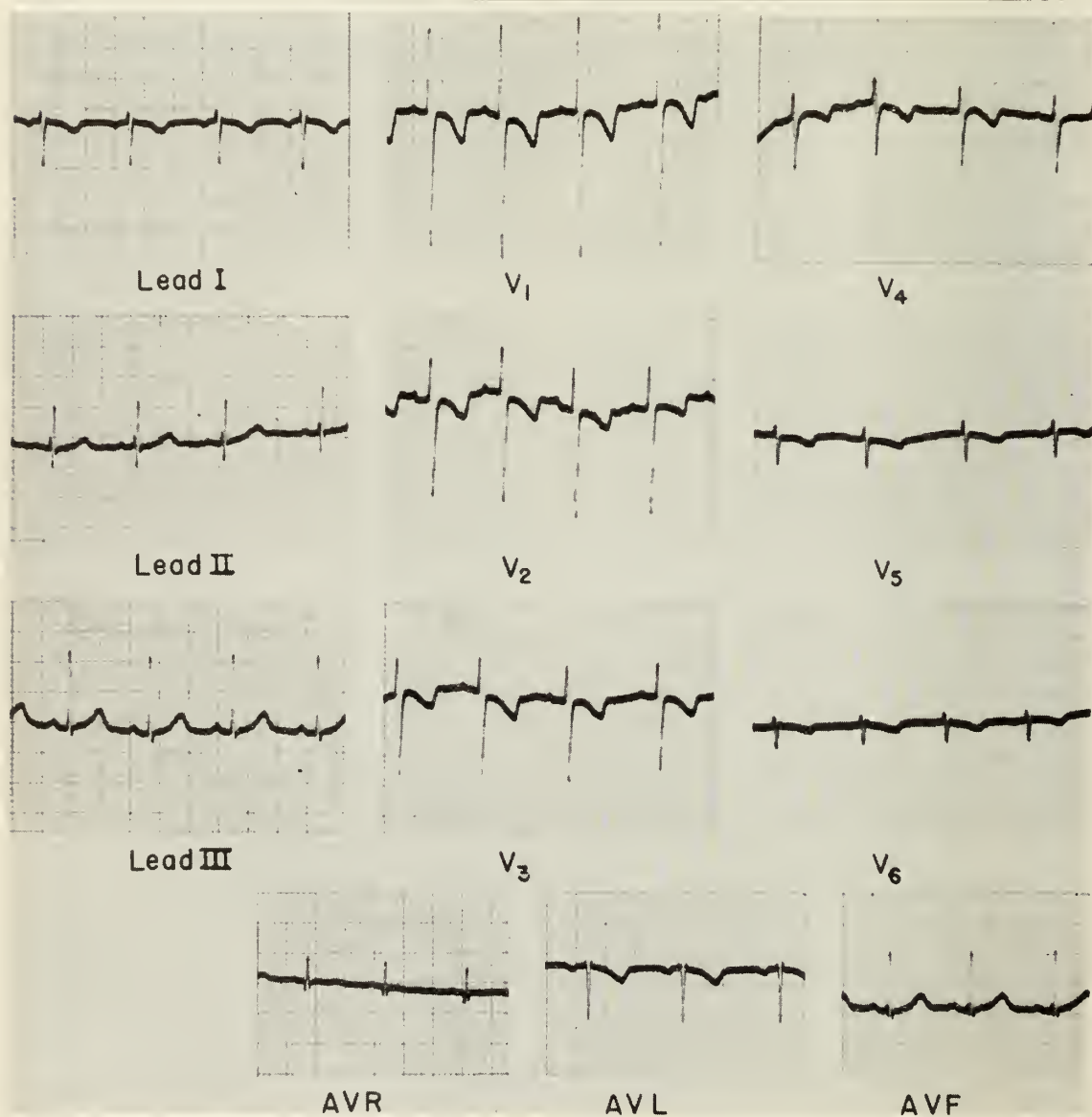
# ELECTROCARDIOGRAM OF THE MONTH

## DEXTROCARDIA

DALE GROOM, M. D.  
Charleston, S. C.

*Case Record*—A 3 year old boy with no signs or symptoms of heart disease was found on routine examination to have dextrocardia. This diagnosis was confirmed on roentgenographic examination which revealed a complete situs inversus.

*Electrocardiogram*—There is a fairly rapid rate with some sinus arrhythmia. In lead I all major deflections, including the P waves, are downward and the electrical axis is directed to the right. Correlated with this is the progressive decrease in R waves as the



V lead electrode is moved from right to left across the chest wall. The major QRS deflections are upright in leads aVr and downward in aVl. All precardial T waves are inverted as is usual at this age, and in all other respects this electrocardiogram is normal for a child of 3.

*Discussion*—Of all congenital anomalies of the heart the electrocardiogram is said to be pathognomonic in only one: true congenital dextrocardia. Although not in itself a disease, this anomaly produces characteristic electrocardiographic changes which differ considerably from the usual standards of normality.

In true dextrocardia the lateral orientation of the heart is reversed. This of course reverses the polarity of lead I, which is taken from the right arm to the left arm, causing the P waves and all other deflections to appear inverted. Holding the tracing of this lead upside down before a mirror will reveal a normal lead I configuration. Furthermore lead II in dextrocardia resembles lead III of a normally positioned heart, while III looks like a normal lead II. It follows that aVr and aVl will appear reversed. The electrical axis will be directed

From the Department of Medicine, Medical College of S. C.

toward the right side instead of the left, often giving the appearance of extreme right axis deviation. All of these changes, including inversion of the P waves in lead I which is cited as a conspicuous clue of dextrocardia, are sometimes accidentally produced in tracings of normal subjects by inadvertently switching the lead wires to the two arms.

In the V leads it is evident that the R waves—and the total voltage of the QRS complexes—decrease as the electrode is moved from right to left. This is contrary to the usual findings, comparable to advancing the electrode across the right chest in a normal subject. Therefore the V leads demonstrate that this is actually a case of dextrocardia rather than a mistaken reversal of the arm electrodes because in the latter event no abnormality in the unipolar precordial leads (recorded with both arms connected through resistors to a common central terminal) would be expected.

An entirely normal electrocardiogram was taken on this child by switching the two arm leads, transposing positions V-1 and V-2, then placing the precordial electrode in analogous positions on the right side of the chest, the actual precordium in dextrocardia.



# PELVIC INFLAMMATORY DISEASE TREATED WITH TETRACYCLINE\*

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The problem of salpingo-oophoritis accounts for a large percentage of our gynecologic clinic visits and a conservative estimate of admissions to the hospital gynecological service indicates that such cases make up 60 per cent of our gynecological admissions. With these factors in mind, and with the realization that our therapy was far from ideal, we attempted to evaluate the effectiveness of tetracycline, one of the newer antibiotics, in controlling the infection and in reducing the duration of hospitalization.

The tetracycline family of antibiotics, including oxytetracycline and chlortetracycline as well as tetracycline itself, are closely allied chemically as well as in antimicrobial effect. Tetracycline was first produced in 1952. Since then it has been in clinical use and has been found to be fully as effective as its congeners against both gram-positive and gram-negative organisms. The side effects associated with the tetracycline antibiotics are usually restricted to the gastrointestinal tract, and are generally thought to be less frequent and less severe with tetracycline itself than with the others.

The present study is concerned with the use of tetracycline in combating several organisms, primarily the gram-negative bacilli, *Escherichia coli* and *Aerobacter aerogenes*, which were found in 30 patients with pelvic inflammatory disease.

Race: All of the patients included in this series were Negro.

Age: The youngest was 16 years of age and the oldest 48 years old with an average of 24 years of age.

Temperature: The lowest was 99.8° F. and

the highest 104.6° F., with an average of 101.5° F.

Afebrile after therapy: The shortest was 4 hours and the longest was 240 hours with an average of 49 hours.

Days in the hospital: The lowest was 3 and the longest 30 with an average of 7 days.

Sedimentation rate: Sedimentation rates were obtained on 17 of the 30 patients in this series. The highest was 52 mm. and the lowest was 19 mm. with an average of 40 mm.

WBC: The highest was 29,300 and the lowest 6,100 with an average of 16,900.

Dosage: All patients who were acutely ill, with abdominal distention, dehydration and inability to retain fluids, were given 500 mg. tetracycline intravenously in 1000 ml. of fluid every 8 hours. Until they were tolerating a full liquid diet, intramuscular tetracycline was used; and thereafter, oral tetracycline was used in dosage 250 mg. every 4 or 6 hours. Sixteen of the patients in this series were able to begin oral tetracycline therapy on admission.

Cultures: Either cervical or blood or urine or abscess cultures were obtained on 22 of the 30 patients. Only two patients had blood cultures which were positive, one for *Micrococcus pyogenes var. albus* and the other for *Micrococcus* species. No cervical smear or culture was positive for gonococcus. The predominant organisms on urine culture were *Escherichia coli* and *Aerobacter aerogenes*. The predominant organisms on cervical cultures were *Esch. coli* and *A. aerogenes*.

Results: Satisfactory results were obtained in 25 patients. Five patients were unimproved after trial of 24 hours of tetracycline therapy. Of the 5 patients who were unimproved, 4 had chronic infection, one had acute infection and all had tubo-ovarian abscesses. The patient who was febrile for 10 days had a severe pelvic cellulitis on admission and later a pel-

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Tetracycline supplied by Dr. M. William Amster, Director of Medical Service, Chas. Pfizer & Co., Inc., Brooklyn 6, New York.

vic abscess formed. Broad-spectrum antibiotics were given in succession without success. The abscess became localized and was drained. The temperature promptly returned to normal and the patient was discharged two days later.

The patient who was hospitalized 30 days was admitted because of low abdominal pain. She was 48 years old and her condition had been previously diagnosed as chronic pelvic inflammatory disease on several occasions. As the sedimentation rate, WB count, and temperature were all within normal limits, it was decided to do a pelvic clean-out. During surgery it was noted that she had bilateral pyosalpinx. One abscess was entered inadvertently and she had a very stormy and prolonged

hospital stay thereafter.

#### Summary

A total of 30 patients with acute or chronic pelvic inflammatory disease were treated with tetracycline. The drug was discontinued on one patient because of side effects. This patient noted several liquid stools about 4 days after tetracycline therapy was started. The drug was discontinued and the diarrhea ceased shortly thereafter.

On the basis of this study, we believe tetracycline is an effective antibacterial adjunct in the treatment of pelvic inflammatory disease. As one would expect, the response in the acute cases was much more dramatic than the slow progressive improvement seen in the majority of the chronic cases.

## EPIDEMIOLOGY OF SYPHILIS

### A Report on Two Chains of Infection

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In the epidemiology of direct-contact communicable diseases, such as the venereal diseases (and to no group of diseases can the term "direct-contact" be more aptly applied), there are obviously two basic factors which should be determined as a foundation for control measures;

First—The possible source of infection.

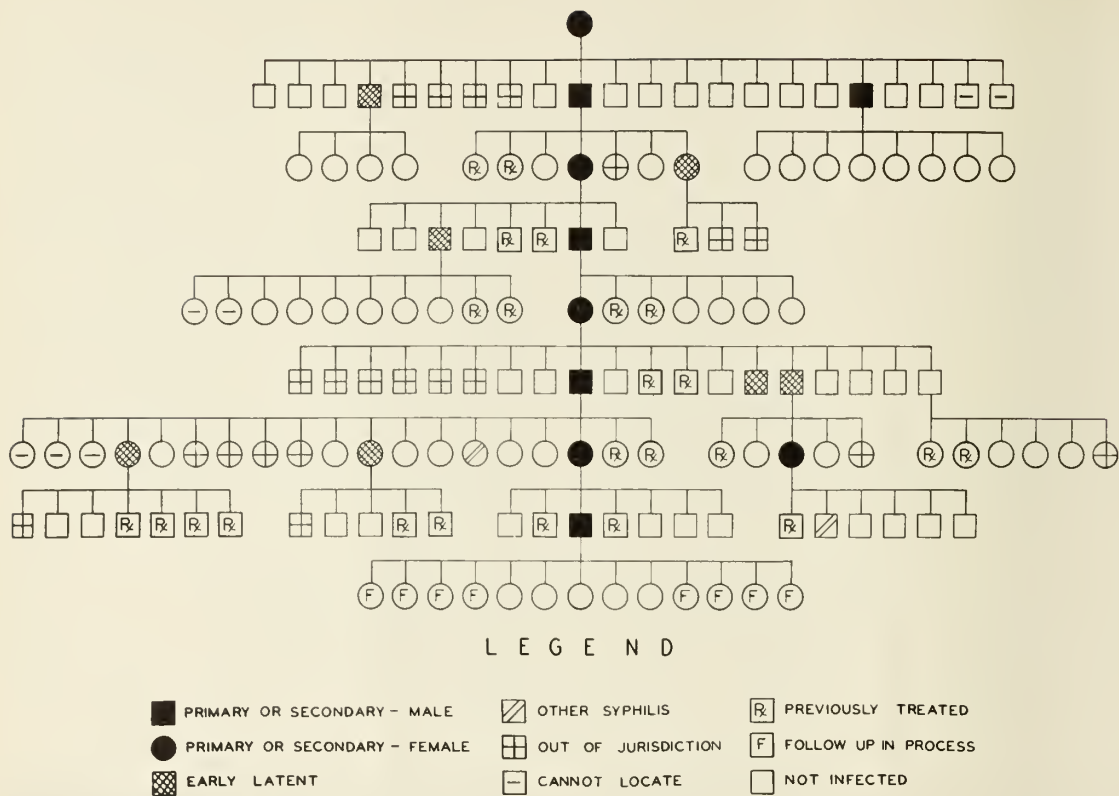
Second—Identification of known contacts.

Since syphilis is transmitted in most instances through sexual activity, the contacts in each case are definitely known to at least one individual—the patient himself. In order to trace the infection to its source and to arrest its spread, therefore, it is essential that this vital information be obtained from the patient. Accordingly, close cooperation between the patient, the physician, the contacts and the investigating agency is of paramount importance. Each case of syphilis is potentially the beginning of a wide-spread chain of infection. Striking examples of such spread are the two epidemiological chains described below, which were uncovered in South Carolina

this year by Health Department personnel during a 2½ month period.

In Florence County on March 22, 1956, a negro female, single, age 18, a high school senior, reported voluntarily to the County Health Department for examination. She had a typical secondary rash. Serological test for syphilis on blood specimen taken this date showed positive in dilution of 1/256. Last previous test on this patient (June 9, 1955) was negative. Upon interview, twenty-two contacts were elicited, 19 of whom were located in Florence and vicinity. Three of these were found to be infected, and the accompanying chart (Fig. 1) shows the epidemiological chains unearthed in connection thereof. A study of the work-sheets revealed that about 85% of the contacts were from one particular section. A cluster survey was then conducted in that area, with a total of 384 blood specimens being taken, and which resulted in 8 new cases of syphilis being brought to treatment. As will be noted, many of the contacts were found to be "not infected" at the end of the time-period covered by this report. We have learned, however, that certain of these sub-

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sequently developed symptoms of early syphilis.

The Anderson County Sequence (Fig. 11) began on March 15, 1956, when a colored male, age 20, with a penile lesion reported voluntarily to the County Health Department. At this time the lesion was found to be dark-field positive, although the blood was serologically negative. Three contacts were obtained, one of whom was found to be infected. The subsequent chains set up by contacts, and by contacts of contacts, are shown in the diagram. The contacts varied in age from 13 to 40 years, and among those infected were many of school age. Some of them were already under treatment by private physicians. One of these was interviewed at the request of her own physician, thus bringing to light one of the chains illustrated. In contact areas blood-testing was then instituted, and about 400 individuals voluntarily accepted the blood-testing service. This included 200 students of the 10th to 12th grades in one school. The chains which were uncovered yielded 25 new cases

of early (primary or secondary) syphilis, and also 3 congenitals, a number of early and late latent cases, and 2 female homosexuals. Many were found to have had previous adequate treatment. All cases shown on the chart were authenticated; all were located and brought in for either examination or treatment. Of those in process of follow-up on June 30, 1956, two have subsequently been reported with primary lesions.

These two epidemiological sequences are representative of many which are daily being revealed over the State, and are presented in this report because they are the most complete chains to be followed through during the past several months. Usually the recorded sequence is initiated by the voluntary reporting of a syphilitic patient to the County Health Department, but somewhere during the investigation the chain may break for one reason or another. Not infrequently the chain is broken, as far as our investigations are concerned, because the infected contact is found to be already under treatment by a private

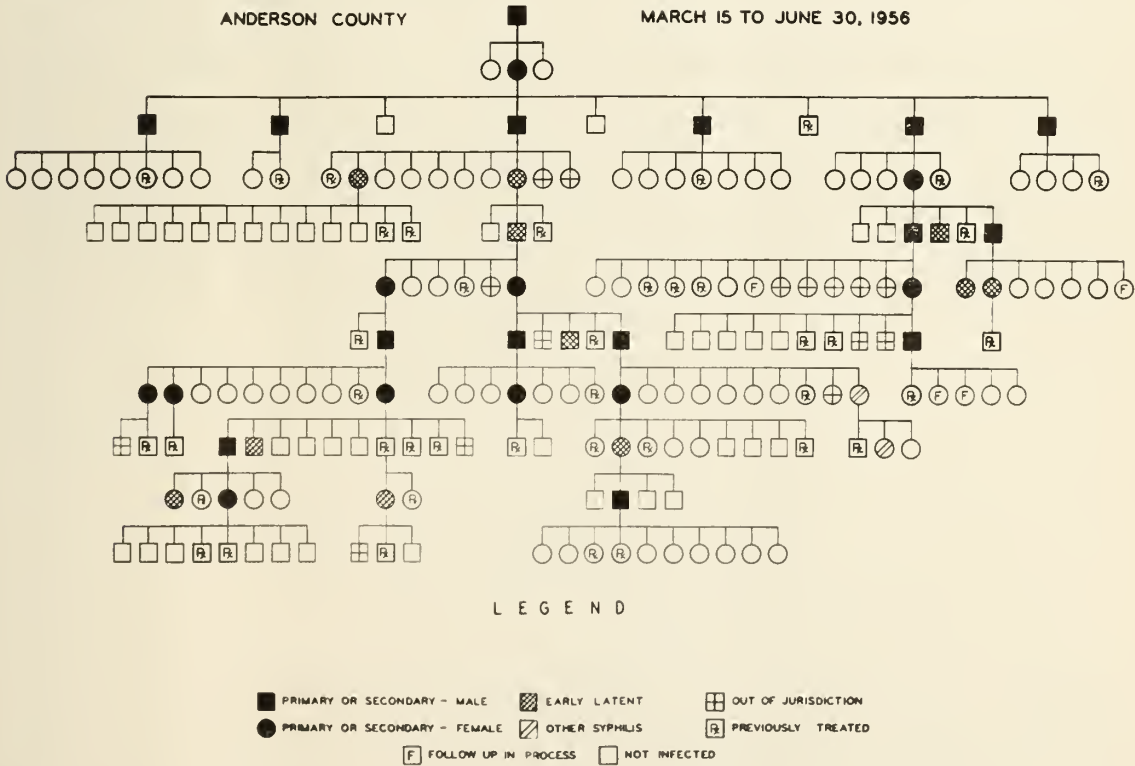
physician. Under such circumstances the investigation by Health Department personnel is automatically terminated unless or until the physician himself requests that his patient be interviewed for contacts.

According to the records of the State Board of Health, during the past 12 months 822 physicians submitted blood specimens for serological test for syphilis, on which the laboratory reports were positive, indicating that over 50% of our South Carolina physicians are still encountering syphilis in their practice. Furthermore, in the August 1956 issue of the *Journal of the South Carolina Medical Association* an article entitled "Venereal Disease Morbidity Reporting by Private Physicians" showed that private physicians are now seeing and reporting approximately 50 early cases of syphilis (primary or secondary) per month. Under our policy, however, interview and follow-up investigation of contacts of these private cases will not be instituted, as mentioned above, unless or until the physician himself makes such a request.

From the standpoint of diagnosis and treat-

ment, the responsibility has always been and will continue to be primarily that of the private physician. His responsibility, however, does not stop there. He is *morally* a public servant just as the workers in organized health agencies are *officially* so. Too, often, however, his desire and ability to serve beyond the scope of his actual practice is limited by the necessity of earning a livelihood. It is here that public health agencies can assist by relieving him of at least part of this responsibility.

The South Carolina State Board of Health is now offering to physicians an epidemiological service, consisting of patient-interview and contact-investigation immediately upon request. Whenever a physician diagnoses a case of primary or secondary syphilis he may request this service by a telephone call collect to the V. D. Control Section of the S. C. State Board of Health or, if he prefers, he may telephone his local (county) Health Department and it will relay the message by telephone to the Columbia Office. Reporting of the case by name is not necessary. All V. D. reports and records are, of course, held in strictest con-



fidence. Immediately upon receipt of such a request an experienced district worker will be dispatched to the physician's office, regardless of which section of the state may be his location. Notices to this effect are currently being mailed, county by county, to all physicians who are using the State Board of Health Laboratory for serological testing. All physicians concerned are encouraged to utilize this service, as it will enable them to assist materially in the uncovering of new cases of syphilis and preventing the spread of infection, and in so doing they should enjoy the personal satisfaction of rendering a valuable service to their community and to their state.

*Gracilis Muscle Transplant for Rectal Incontinence*, Kenneth Pickrell, M. D., Nicholas Georgiade, M. D., Carter Maguire, M. D., (Charleston) and Hugh Crawford, M. D., *Surgery* 40:349-363, 1956.

In patients with neurogenic incontinence and anesthesia of the perineum, due to interruption of the nerve supply to the perineum, rectum, and bladder—the result of spina bifida, meningocele or paraplegia—the gracilis sling or transplant operation will restore voluntary, controlled continence. However, it is not automatic and subconscious as in the normal sphincter mechanism. This reconstructed sphincter is always tight, except when it is relaxed purposefully. In patients with rectal incontinence due to absence or division of the sphincter mechanism, who have good perineal sensation, the gracilis sling transplant will restore essentially normal, voluntary and automatic control.

Thirty-four patients have been operated upon with gratifying results. In each instance, the patient has developed continence of both feces and gas. Eighteen

### Summary

The two epidemiological chains of syphilitic infection described in this report demonstrate the ease and extent of spread and the importance of patient-interviewing and contact-investigation. Numerous comparable chains are constantly developing but are beyond reach of control measures unless or until the identities and locations of those concerned can be established.

The private physician can render a valuable service by requesting epidemiologic service on his early cases—a service which the State Board of Health is now prepared to render.

patients were children who ranged in age from 3 to 14 years. Fourteen were operated upon to correct neurogenic incontinence; two for imperforate anus, and one, a child of three years, for traumatic avulsion of the perineum. Of the sixteen adult patients, ranging from 20 to 72 years, three were paraplegics, two had perineal colostomies, and the remaining eleven patients had developed incontinence following operations upon the rectum and anus.

Our patients, both children and adults, were essentially social outcasts except within their immediate families. Possibly resulting from this social ostracism, they were extremely anxious to learn to use the new sphincter mechanism and to attain continence.

This presentation points out in detail the neuropathology of the incontinent patient and the rationale for the gracilis muscle transplant operation. The care of the patient both before and after operation and the operative technique are described and illustrated.



# HYPOTHERMIA

## A Review of The Cardiovascular Effects of Hypothermia\*

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In the past few years general hypothermia has been investigated as a means of reducing oxygen requirements of the body sufficiently to allow exclusion of the heart from the circulation and thus permit intracardiac surgery under direct vision. In another important group of patients whose poor physical condition precludes radical surgery of any type, if the oxygen demands of the brain and other vital organs can be sufficiently reduced by hypothermia, it is conceivable that these patients would be able to withstand the shock of reduced circulation and even peripheral vascular embarrassment for short periods of time. Hypothermia is capable of significantly reducing metabolism and of producing a "physiologic hypotension." As such, the use of this modality suggests itself as a potentially valuable technique in a variety of conditions.

### *History*

As far back as 1905, Simpson and Herring, working in Edinburgh, induced a state of profound generalized hypothermia in animals. They observed that at temperatures below 25° C. no anesthetic was necessary, the animals were incapable of being awakened, and appeared to feel no pain. In 1938, Fay and Henry noted that patients with malignant conditions of the bone seldom exhibited involvement of areas below the elbow or knee. They found that in these patients skin temperature of the extremities was 3° to 11° C. cooler than the rest of the body. From this observation they decided that cancer cells could not live in areas where the temperature was too cool and, therefore, they attempted to use "cryotherapy" as an inhibitor of malignant growth. Initial studies involving local application of cold on a woman with carcinoma

of the cervix were partially successful, and because of this Smith and Fay in 1940 and Fay (1940) undertook cooling of the entire body for treatment of cancer in regions not accessible to local cooling. Thirty-three patients were cooled to temperatures from 23° to 32° C. and maintained there for periods of as long as eight days. Circulation time doubled, urine was normal, there was no evidence of nitrogen retention, and respiration was irregular and shallow. The patients were semi-comatose but were rousable and all exhibited a marked insensitivity to pain which had previously necessitated administration of opiates. Basal metabolism was reduced 6 to 25 per cent below normal and auricular fibrillation was a common occurrence.

Vaughn, in 1940, repeated Smith and Fay's work. He subjected six patients with malignant growths to hypothermia and verified Smith and Fay's results. Vaughn felt that the procedure was hazardous because heroic measures were required to avoid death in one of the patients. He stated that relief of pain was the only advantage of the hypothermia.

In 1941, Talbott reported a study whereby hypothermia with temperatures of 28° to 32° C. for several days was utilized in treating twenty patients suffering from various psychopathic disorders. Two patients died of heart failure. There was considerable constriction of the arteries in all patients and it was difficult to draw venous blood because of venous constriction. All patients cooled to 26° C. showed auricular fibrillation.

The first reports of the use of hypothermia during a surgical operation were by McQuiston in 1949 and Bigler and McQuiston in 1951. McQuiston did not try to achieve great reductions in body temperature, but found that his methods reduced the mortality of cardiac operations in children. In 1950, three important papers were published by Bigelow, Callaghan, and Hopps; Bigelow, Lindsay and

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\*This review is part of a project supported by research grant H-40 C(8) from The National Heart Institute, National Institutes of Health, Public Health Service.

Greenwood; and Bigelow *et al.*, covering their studies on experimental surface cooling. To them must go the credit for rekindling interest in this technique. They investigated the physiology of hypothermia in the dog and explored its possibilities in cardiac surgery. Hegenauer and Penrod carried out a similar series of studies for the U. S. Air Force in 1950 and 1951.

In 1951, Boerema *et al.* reported the results of their studies on the use of hypothermia in cardiac surgery. In 1952, Cookson, Neptune and Bailey reported in two papers on their studies of the use of hypothermia for cardiac surgery. Of six patients subjected to hypothermia, three developed ventricular fibrillation and the other three recovered. Two of the patients whose hearts fibrillated were adults. In 1953, Lewis and Taufic reported the successful use of hypothermia in the closure of an atrial septal defect in a human. The body temperature was reduced to 28° C. and the cardiac inflow was occluded for five and one-half minutes, thus enabling the surgeon to perform the operation under direct vision. Lewis and Taufic reported on further successful studies of the repair of atrial septal defects in 1954. Also in 1953, Swan and his group at Colorado reported on fifteen patients undergoing intracardiac operations at body temperatures ranging from 21° to 26° C. In thirteen of these cases the circulation was arrested for periods ranging from two to eight minutes and there was only one death in the series. This report by Swan was followed by further studies in 1954 by Swan and Zeavin. Bailey and his group reported on their continuing studies in 1954 with somewhat more success and, in 1955, Lewis and Taufic reported the successful closure of experimental ventricular septal defects in dogs. They had presented a preliminary report in 1953.

In Great Britain, in 1952, Delorme advocated the extracorporeal method of cooling based on his experimental studies in animals. More recently, Ross, in 1954 and 1955, has used a method combining extracorporeal cooling with a pump oxygenator with very good success. In 1954, Senning in Sweden also used this technique with excellent results. On the whole, however, surface cooling has been more wide-

ly employed in Britain, and much of the original work on this technique has been carried out by Dundee, Scott, and Mesham in 1953, Dundee and Mesham in 1954, Dundee, Francis and Sedzimir in 1954, Churchill-Davidson *et al.* in 1953 and by Lynn *et al.* in 1954.

In France, a technique known as "artificial hibernation" was introduced in 1951 by Laborit and Huguenard. It is still the principal technique used among the investigators on the Continent although Dogliotti and Ciocatto in 1954 carried out studies with the extracorporeal circulation and hypothermia, and Juvenelle, Lind and Wigelius in 1952 and 1954 reported on their studies of extracorporeal cooling and artificial circulation. The principal aim of the "artificial hibernation" method is stated to be a pharmacologic blockade of the autonomic nervous system, the blockade being reinforced by a mild degree of hypothermia.

#### *Physiological Effects of Hypothermia*

It is surprising that little of the physiology of cold and of hypothermia is known. One should keep clearly in mind the distinction between "cold" and "hypothermia." Cold is a physical state, usually used as a description of the intimate environment of warm-blooded animals. Hypothermia is a term usually restricted to describing the state of the homeothermic animal with a subnormal body temperature. Hypothermia, obviously, may be of different degree (i. e., any body temperature below normal body temperature). In the range from 37° C. (98.6° F.) down to 20° C. (68° F.) there is general agreement on the following essentials.

Body temperature can be lowered by a variety of cold agents, provided shivering is prevented. Under these conditions, metabolic activity falls progressively as the body cools. There are associated decremental changes in blood pressure, blood flow, cardiac output, heart rate, etc. External respiratory movements also become slower and at some point will cease entirely. The point of cessation of external respiratory movements depends in part on the type of anesthesia used, and may vary from 20° to 28° C. From this point on, artificial respiration must be established if life is to be maintained. It has been generally

accepted that major organ function continues at temperatures below 28° C., and above 20° C. no specific permanent changes in cellular function due to hypothermia alone occur within periods of several hours. A recent report by Knocker (1955) has cast some doubt on the effects of hypothermia *per se* on major organ function. This author has shown that histopathological changes occur in the liver, kidneys and adrenal glands when the hypothermic dog is maintained at 22° to 26° C. for short periods of time. These results, while important, are not conclusive since similar changes have not been reported in the naturally hibernating animal and, thus, may be due to methods of cooling rather than cold itself. Further study is obviously necessary.

Age is apparently an important factor with regard to survival during hypothermia. Adolph, in a series of studies (1948 and 1950), has shown the young rat can tolerate deep cooling more safely than the adult. He has also studied other species of small mammals with similar results (1951). Maguire and Mercudino (1955) have recently shown an age differential in dogs. They showed that young dogs survive hypothermia more readily than adult dogs. Their studies verify the work done by Barbour, McKay and Griffith (1943) and Barbour and Gilman (1934), although Maguire and Mercudino studied primarily cardiovascular responses to hypothermia.

Rodbard *et al.* (1951) have studied changes in plasma and extracellular volumes during hypothermia of rabbits, but only to 29° C. D'Amato (1954) has studied these changes in the dog down to temperatures of 20° C. D'Amato and Hegnauer (1953) studied changes in blood volume of the hypothermic dog. Helmsworth, Stiles and Elstein (1955) studied the changes in blood cellular elements during hypothermia. They found that there was a rise in hematocrit count and mean corpuscular volume. The leukocyte count fell considerably and there was a fall in eosinophil count. The mean corpuscular hemoglobin concentration was reduced and the platelet count showed great reduction. All animals exhibited a hemorrhagic diathesis, and while no coagulation studies were made, the experiments suggested a prolonged bleeding time and throm-

bocytopenia during hypothermia.

Haterius and Maison (1948) have studied the rewarming of the hypothermic dog and found that of twenty-one dogs cooled to an average rectal temperature of 14.9° C., eight died during or immediately after rewarming due to respiratory failure or heart block. Spur, Hutt and Horvath (1954) have studied prolonged stable hypothermia in dogs ranging from one to thirty-four hours in duration. They found an exponential relationship between the fall in heart rate, pulmonary ventilation and oxygen consumption, and the reduction in rectal temperature. These relationships were in agreement with van't Hoff's rule. DaCosta, Ratcliffe and Gerbode (1954) studied the physiological effects of hypothermia in chronic experimental cyanosis. They found that dogs with this defect did not differ from normal dogs in their response to hypothermia. Fisher *et al.* (1954 and 1955) studied the effects of prolonged hypothermia (up to 36 hours) with results similar to those of the two previous studies. Niazi and Lewis (1954) studied the effects of deep hypothermia and simultaneous cardiac standstill in adult rats. They observed that if cardiac standstill occurred prior to ventricular fibrillation the animals could be carried to much lower temperatures (10° C.) with apparent complete recovery.

Several studies have been carried out to determine the effect of hypothermia on cerebral activity and function. Scott, McQueen and Callaghan (1953) and Callaghan *et al.* (1954) found that at 20° C. the electroencephalogram of monkeys showed little or no activity. There was no evidence of any temporary or permanent damage following rewarming. Rosomoff and Holaday (1954) reported that there was no apparent hypoxia of brain tissue in dogs cooled to 25° C. Similar results had been reported by Fazekas and Himwich (1939) and Hamilton (1937). Williams *et al.* (1954) and Pontius *et al.* (1954) reporting in *Surgical Forums* advocated the possible use of hypothermia and interrupted circulation as a means of performing cerebral surgery.

#### *Hibernation*

With the introduction of hypothermia clinically, interest has been rekindled in studies on the hibernating mammals. As a result there

has been some confusion between the terms *Hibernation* and *hypothermia*. Any mammal, if exposed to a sufficiently low temperature, will increase its muscular activity, shiver, and increase its metabolic rate. If the cold is too intense or of too long duration, exhaustion eventually takes place and the animal begins to cool. When a critical level of body temperature is reached, death occurs, usually as a result of cardiac arrest or ventricular fibrillation. This sequence of events can occur in both hibernators and mammals that do not hibernate, but death takes place at a much lower temperature in the hibernator. Similar conditions can be duplicated by anesthetizing an animal and exposing it to cold.

One important factor which characterizes the deeply hibernating state is that the normal hibernating animal is capable of arousing from this state without the aid of heat from external sources. Any hibernating mammal which has received a stimulus strong enough to start the process of awakening will begin a chain of physiological reactions which result in a rapid production of heat and culminate with the animal being fully awake at the end of two or more hours. Failure to realize that this is typical of true deep hibernation has led to some confusion. For example, hibernators treated with drugs such as pentobarbital sodium and then exposed to cold cannot be considered to be in the deeply hibernating state when their body temperature drops to that of the environment because they are incapable of arousing themselves from this state regardless of the external stimulus.

Many of the studies on hibernating mammals have been carried out by Lyman (1951), Lyman and Chatfield (1953 and 1955) and Lyman and Hastings (1951). Bigelow and McBirine (1953) and Bigelow, Mustard and Evans (1954) studied the groundhog and its "hibernation gland" in an attempt to find a hormone responsible for hibernation. Dawe and Morrison (1954) and Nardone, Wilber and Musacches (1954) studied the characteristics of the hibernating heart and the electrocardiogram patterns in some detail. Smith and Fairer in England (1953) reported on studies in that country concerned with the relation of hibernation and hypothermia.

Deane and Lyman (1954) have shown that there is a decline in thyroid and adrenal activity associated with hibernation. This lack of response of endocrines so intimately concerned with metabolism must be permissive of the hibernating state, but the evidence is not convincing that the endocrines exert a dominant role in the onset of hibernation.

Chatfield and Lyman (1950) reported that they have occasionally observed a dissociation of the auricles and ventricles during hibernation of the hamster. In as much as in hypothermia of the nonhibernating animal auricular fibrillation, abnormally slow conduction and 2:1 and 3:1 A-V blocks have been reported by Crimson (1944) and by Fairfield (1948), it seems certain that of all the conducting mechanisms of the heart the auriculo-ventricular junctional tissue is the most susceptible to the effects of cold. Chatfield and Lyman (1950) have also observed marked dilation of the peripheral circulation in the hibernating animal.

#### *Methods of Cooling*

Several techniques have been employed to secure general hypothermia. Production of hypothermia by surface cooling is the most widely used method and is accomplished by (a) immersion in ice water, (b) enclosing or wrapping the patient or animal in a refrigerating blanket, and (c) cooling with air. Of these three methods of cooling, immersion in ice water up to the lower third of the thorax is the simplest method and many investigators feel that this may be the clinical method of choice in infants and children. The refrigerating blanket in some respects is more convenient since it can be more easily controlled and can be used for rewarming. It is also the preferred clinical method of cooling for larger children and adults. Cooling with air has been used only under experimental conditions although recent studies in Sweden indicate that this method has been used clinically with some success in that country. It should be pointed out, however, that direct application of cold of any duration to skin or surface areas may bring about the development of acute tissue damage. This is often seen in accidental prolonged immersion, and was especially frequent among fliers shot down at

sea during World War II. Kreyburg (1949) outlined the pathology of such damage and all investigators should realize that it can occur during any prolonged hypothermia.

Extracorporeal circulation and cooling, with and without the use of the artificial heart pump, has been used with success by some investigators. The cost of such equipment, however, has to date apparently been one of the principal reasons for its limited use. Recent adaptation of this technique has been introduced with singularly good success. Ross (1954) introduced a relatively simple and inexpensive machine in England. Gollan, Blos and Schuman (1952) and Gollan, *et al.* (1955) in this country have used a combination of extracorporeal cooling with a heart pump and oxygenator to cool dogs to temperatures of about 5° C. with recovery. Juvenelle, Lind and Wigelius (1954) have studied the use of extracorporeal cooling and artificial circulation with a heart pump in combination with the drugs of "artificial hibernation." A review of their studies does not show that there are any marked advantages to be obtained from the use of the "hibernation" drugs. Peirce and Polley (1953) have studied differential cooling of the heart alone for use in intracardiac surgery. Generally speaking, it would appear at this time that hypothermia produced by extracorporeal cooling and combined with the heart pump oxygenator offers greater degrees of cooling and more adequate oxygenation with recovery than the other methods used to date.

The use of drug-induced hypothermia under the general designation of "artificial hibernation," or "slow-motion life," or "sympathetic neuroplegia" has been used extensively in Europe, especially in France. Drugs are usually used in conjunction with a mild degree of surface cooling to facilitate the production of hypothermia.

The phenomena developed in men and claimed by some in Europe to be of clinical value, designated under the terms "artificial hibernation," or "slow motion life," or "sympathetic neuroplegia," are not the same as the deep hypothermia which is the main topic of this paper. Because it is essential clearly to distinguish the two sets of phenomena so that

hypothermia receives none of the disapproval due the "artificial hibernation," "slow motion life," etc., the following paragraphs describing the "artificial hibernation," "slow motion life," etc., are inserted here.

The drug-induced hypothermia, according to published data, usually decreases the temperature of the subject only from 0.5° to 3.0° C. The drugs which have been used are given in a mixture containing from three to eight different agents, the mixture usually called a "French cocktail," or "lytic cocktail."

The originators of the "French cocktail" are the biologists Laborit and Huguenard. They have described the hypothesis of this technique in broad outline to the effect that warm-blooded mammals, and particularly men, have evolved into a state of relative freedom from their environment as described by Bernard's *milieu interne* and the "homeostasis" of Cannon. Their metabolic activity, as mediated through a so-called neuro-endocrine system, operates at an extremely high rate. Because of this condition the organism may soon exhaust itself, but through a reduced metabolic level the same energy might serve to overcome the severe stimulus and permit survival. From this romantic concept has sprung a rash of clinical applications, from which, in turn, great claims have been made. The "lytic cocktail," containing from three to eight different drugs and varied at the whim of the physician, is administered over a period of days to patients with a variety of diseases. Operations may be performed and it is alleged that the patients would not have survived their diseases and their treatment had they not been subjected to polypharmacy.

It is true that there are changes in the patient simulating a drugged sleep. He is lethargic and moves only a little; his pulse and blood pressure are decreased; pain response is decreased; emotional reactions lost; but vital functions persist. They stated that metabolism is markedly reduced; yet no studies of oxygen consumption have been done. The term "sympathetic neuroplegia" suggests paralysis of the sympathetic or parasympathetic systems or both, but no testing of sympathetic functions can be found in the literature. The word "hibernation" has been

used; yet published data on body temperature reveal a drop of only 0.5° to 3° C. This temperature level is known to have only a slight effect on metabolism and is a far cry from the hibernating animal whose temperature may be in the neighborhood of 4° C. to 10° C. or lower. It is apparent, then, that a state of skepticism regarding this bold theory will remain until some scientific evidence is submitted to lift it from the realm of philosophy. From the point of view of hypothermia, however, it must be emphasized that the French are describing a state in which body temperature is only slightly below normal.

Investigators in this country and Britain have been rather sharp in their criticism of the use of the lytic cocktail. Burn (1954) has been conspicuously outspoken among the English pharmacologists, while Swan (1954) in this country has been extremely critical of the rationale of its use. Juvenelle (1954) in France, while critical of the techniques employed by Laborit, has presented an interesting and calm evaluation of the drug or drugs as they are used in the lytic cocktail. A recent study has been carried out in this country by Fabian *et al.* (1955), but it does not add any significant new data to information which already exists.

From Britain, on the other hand, has appeared an important study of the relation between the "lytic cocktail" and hypothermia. Previous work there had been largely concerned with the use of hypotensive anesthesia as a means of reducing hemorrhage during certain operative procedures. Hypothermia was not involved except by analogy. Pharmacologic hypotension, at levels of 70 to 100 mm. Hg. systolic pressure were demonstrated to be well tolerated by the anesthetized human. Hypothermia in the range between 35° and 20° C. causes progressive lowering of systolic blood pressure by 30 to 60 mm. Hg., with tissue and organ survival. Both methods, apparently result in a form of "physiologic," or survivable hypotension. Dundee *et al.* (1953) studied in both dogs and patients the effect of (a) hypothermia on metabolic rate, (b) each agent of the "lytic cocktail" on the cooling process, and (c) the "lytic cocktail" on cooling and metabolic rate.

With regard to the first, they confirmed the previous work of Martin (1930) and of Bigelow *et al.* (1950), by demonstrating that in the absence of shivering a definite relation exists between body temperature and oxygen consumption. The metabolism drops about 5 per cent for each degree Centigrade down to 27° C., and less rapidly thereafter. Penrod (1949) has shown that oxygen consumption varied directly with the degree of shivering. Second, of the three principal components of the cocktail, Pethidine (meperidine hydrochloride) "vagolytic," Avomine (promethazine chlorotheophyllinate) "sympatholytic," and chlorpromazine "CNS depressant," only the last appeared to enhance the speed of cooling, and then apparently only through inhibition of shivering. Deep anesthesia and curarization were essentially as effective in promoting hypothermia. Thus, the importance of the inhibition of muscle activity as pointed out by Smith and Fay (1940) has been confirmed. Third, the "cocktail" itself resulted in a fall of body temperature rarely in excess of 2° C. (averaging 0.5° C.) and oxygen consumption fell only 8 to 10 percent. It can be seen that the claims that the "cocktail" specifically lowers metabolism remain unconfirmed.

Laborit and Weber (1956) in a recent article have presented an answer to their critics. On the whole, though, it does not offer any really significant data to substantiate their claims. It would appear, therefore, that the problem is far from settled and only further study can hope to provide satisfactory solutions.

The first extensive studies on the pharmacology of chlorpromazine and its derivatives were done by Courvoisier *et al.* in 1953. Chlorpromazine has a rather wide range of actions which are not all clearly understood. Among them are these; (a) it potentiates the action of barbiturates; (b) it produces a severe degree of postural hypotension; (c) in large doses it may reverse the vasopressor action of epinephrine and methedrine, although nor-epinephrine is not affected; and (d) it is highly irritant to veins and must be given by drip technique or be well diluted when injected directly into the veins.

### *Cardiovascular Effects of Hypothermia*

The cardiovascular effects of cooling are complex and even though it has been the subject of intensive investigations, not all workers have reached the same conclusions. The salient features appear to be, (a) a fall in heart rate and blood pressure, (b) a slowing of intracardiac conduction, (c) a drop in cardiac output, (d) a rise in venous pressure, (e) an increase in cardiac irritability in some form, and (f) a decrease in myocardial oxygen consumption. All of these effects become particularly marked at temperatures below 28° C. At temperatures in the range of 20° C. the oxygen consumption of the body, cardiac output, blood pressure and heart rate are about 15 per cent of that observed at 37° C.

The increased irritability of the myocardium observed by all investigators and culminating in ventricular fibrillation is one of the most vexing problems of general hypothermia. It is, in effect, the only cause of death seen during hypothermia. The few cases in which cardiac arrest develops almost invariably change to ventricular fibrillation just prior to the onset of death. Hoff and Stansfield (1949) reported cases of experimental ventricular fibrillation induced by cold. Hegnauer and Penrod in their studies for the U. S. Air Force (1950) reported a high incidence of fibrillation in experiments with dogs. Among their studies they demonstrated that placement of intraventricular catheters during hypothermia greatly increased the incidence of fibrillation. Further studies carried out by Covino, Charleson and D'Amato (1954) determined that endogenous epinephrine and cardiac overloading were not primary causes of ventricular fibrillation.

Myocardial anoxia was first thought by Prec *et al.* (1949) and Hegnauer, Schriber and Haterius (1950) to be the etiologic factor involved in the apparent increased irritability. More recent studies by Hegnauer and D'Amato (1954) and Badeer (1955) have shown rather conclusively that this condition probably does not exist, although Lange, Weiner and Gold (1949) still hold to the anoxia concept. The apparent reason for these conflicting views is the study by Brown and Hill (1922) in which they reported a shift in the oxyhemoglobin

dissociation curve at reduced temperatures. At the same time, however, the oxygen-carrying capacity of serum in the form of physically dissolved oxygen has been shown by Rosenhain and Penrod (1951) to be increased by 25 per cent at hypothermic temperatures. It has also been shown by Penrod (1951) that there is a normal A-V oxygen difference at 20° C. This would support the idea that no cardiac hypoxia results from the shift of the hemoglobin dissociation curve. Penrod has also shown that the use of 100 per cent oxygen with the concomitant increase in dissolved oxygen does not affect coronary A-V difference, although Bigelow, Mustard and Evans (1954) present evidence to show that total oxygen consumption is greater under conditions of arterial oxygen saturation (90 per cent to 100 per cent) than under hypoxic conditions (arterial saturation less than 90 per cent). McMillan *et al.* (1955) have shown that arterial oxygen saturation was satisfactory and have postulated that if hypoxia is to be a major factor in producing ventricular fibrillation, then a block must occur in the transfer of oxygen between the red blood cells and tissue cells. Such a block would produce a decrease in A-V oxygen difference, but Penrod has reported that such is not the case during progressive cooling. In Penrod's studies, however, no coronary flow measurements were carried out; hence, no accurate estimate of oxygen consumption by the myocardium could be made. Edwards *et al.* (1955) have shown that following coronary perfusion with oxygenated blood in the hypothermic dog during cardiac occlusion, ventricular fibrillation was less frequent than in those animals that were not perfused. Therefore, it would appear that while hypoxia is probably not the cause of ventricular fibrillation, anoxemia produced by an insufficient coronary blood flow brought about by the markedly reduced blood pressure may be one of the factors which could precipitate fibrillation or cardiac arrest.

In support of the hypoxic origin of myocardial impairment is the work of Lange, Weiner and Gold (1949). They detected electrocardiographic changes during hypothermia which resembled those produced by

anoxia at normal temperatures. By increasing the amount of physically dissolved oxygen in plasma or acidification of the blood they were able to reverse these changes.

In biochemical studies both Fleming (1954) and Swan *et al.* (1953) demonstrated that the pH of the blood can be varied within rather wide limits, depending on the rate and depth of positive pressure artificial respiration with pure oxygen. Swan does not state the exact limits which he used in his experiments. Fleming maintained a pH of 7.5 with forced ventilation at 20° C. as compared to a normal pH of 7.35 at 37° C., and a pH of 7.03 at 20° C. with inadequate ventilation. The incidence of spontaneous fibrillation was greatly reduced under the conditions of forced ventilation. Swan demonstrated that where cardiac occlusion methods were employed in surgery for periods of up to fifteen minutes, ventricular fibrillation always occurred upon release of the occlusion and was accompanied by a rapid rise in venous blood pH from extremely low levels. This rapid rise in pH is believed to be due to an accumulation of CO<sub>2</sub> in the tissues and a rapid washing out of this CO<sub>2</sub> with the reinstitution of peripheral circulation. It was found that the only way to prevent this rapid pH change was by preliminary hyperventilation with 100 per cent oxygen. In both of these studies, however, it was found that animals appear to tolerate low body temperatures better if their pH is maintained at high levels, *i. e.*, on the alkaline side of normal.

The recent study by McMillan, working with Churchill-Davidson (1955), has confirmed the report of Swan that rapid changes in CO<sub>2</sub> levels and hence pH may produce fibrillation under conditions of circulatory arrest. They present evidence, however, to indicate that while this is an important factor, it is not a major factor in spontaneous fibrillation. Once fibrillation has occurred, it may make the situation worse, and so it would seem advisable to maintain a steady blood pH and CO<sub>2</sub> level under conditions of hypothermia. Churchill-Davidson's group found no evidence of an initial respiratory alkalosis similar to that observed by Osburn (1953). They have also shown that the pH changes are in keeping with the carbon dioxide

changes which to them suggests that the respiratory acidosis which develops in hypothermia when respiration is not controlled is not associated with a disorder of cellular metabolism and consequently the presence of acid metabolites. The apparent absence of metabolic acidosis has been confirmed by Fleming (1954) who did not find an alteration in blood pyruvates and lactates.

Brewin *et al.* in a series of studies (1954, 1955, 1956) have investigated the general problem of acid-base equilibrium during hypothermia. These investigators have found that the increased acidity, which might be expected to result from the increased amount of CO<sub>2</sub> dissolved with decreasing temperature, is offset by the greater carrying power for CO<sub>2</sub> as bicarbonate which also occurs with decreasing temperature. In all animals which were subjected to hypothermia, they observed that a metabolic acidosis developed on cooling which was not completely reversed on re-warming. This observation of underlying metabolic acidosis in hypothermic animals is contrary to the results of Fleming (1954), McMillan *et al.* (1955), and Cranston, Pepper and Ross (1955) who have denied that metabolic acidosis exists in circumstances of spontaneous respiration during hypothermia. Cranston, Pepper and Ross claim that only a gaseous or respiratory acidosis is present because of the increased solubility of CO<sub>2</sub> at lower temperatures and because the arterial pCO<sub>2</sub> was maintained at levels close to those found at normal body temperature. Brewin feels that this high gaseous acidosis reported by Cranston, Pepper and Ross could quickly be reduced by artificial ventilation. Cranston, Pepper and Ross also found that the sodium, potassium and chloride concentrations showed little change during and after cooling, and they argue that these results support their belief that no metabolic acidosis was present. Brewin *et al.*, on the other hand, feel that such findings cannot exclude the presence of metabolic acidosis. They point out that the studies of Fleming, McMillan and others were obtained in animals or patients who were surface cooled. Brewin *et al.* cooled all animals and patients by extracorporeal cooling and suggest that this may or may not be an important

consideration.

Brewin *et al.* have reported that the final metabolic acidosis following the rewarming period was more severe in animals which were artificially ventilated than in those which had breathed spontaneously. The reason for this is not clear although they suggest that the respiratory alkalosis produced by the artificial ventilation during cooling is partly compensated for by the renal excretion of base. Deterling *et al.* (1955) have also reported that metabolic acidosis develops during hypothermia in animals ventilated artificially and that during rewarming such acidosis did not disappear.

The cause of the metabolic acidosis of Brewin *et al.* and Deterling *et al.* is not known. It is known that shivering will cause lactate production, but in experiments by Brewin and others gross shivering was prevented. It has been suggested by Brewin *et al.* that prolonged exposure to anesthesia may be responsible for some of the metabolic acidosis which they found.

Brewin *et al.* have carried their studies further and subjected animals to hypothermia and thoracotomy with a ten-minute period of circulatory arrest. Under these conditions a more severe acidosis developed which usually became worse on rewarming. Similar results were obtained in human patients undergoing open cardiac surgery under hypothermia. This severe acidosis was primarily a lactacidosis and they feel that it is due primarily to some impairment of the circulation. This increased lactacidosis during rewarming was not felt to be related to inadequate respiration. An important aspect of severe acidosis in a patient would be that it will certainly prejudice his chances of recovery from a cardiac operation under hypothermia.

Studies were carried out by Brewin's group in an attempt to find the cause of the acidosis. It was subsequently found that following circulatory arrest for ten minutes under hypothermia there was a severe derangement of liver function and structure. On rewarming, the liver was not improved. The nature of this damage was rather severe disruption of the lobular architecture with centrilobular congestion and necrosis and extravasation of blood. There was a corresponding venous congestion of the viscera with rise in central venous pressure of the order of 15-20 cm. H<sub>2</sub>O or more. This increase in central venous pressure was largely prevented by alternately aspirating blood from the inferior vena cava and superior vena cava and returning it by pump to the cannulated femoral artery. In such a manner the central venous pressure was maintained at levels below 10 cm. H<sub>2</sub>O. By reducing venous congestion the metabolic acidosis was largely alleviated and cellular structure of the liver was not altered.

These very important studies by Brewin *et al.* indicate that investigation of liver function during the human operation must be carried out in order to establish the presence of similar changes in the human. It is obvious that the results of liver damage produced as a side-effect of venous occlusion during hypothermia can only influence adversely the immediate prognosis. The primary liver damage and the metabolic acidosis which secondarily supervenes can probably be overcome if the patient survives long enough, but there is a definite risk that the patient may not survive.

(To Be Concluded)

The concluding portion of this review will include a brief discussion of ventricular fibrillation, electrolyte changes, renal function, epinephrine, electrocardiogram changes and myocardial function during hypothermia.





## PRESIDENT'S PAGE

These thoughts are prompted by a recent meeting of the Anderson County Medical Society at which the topic of discussion was medical ethics. Medical ethics differ from personal ethics only in that they take into consideration that the medical profession is primarily dedicated to service to humanity. Their nature is such that they are based upon principles and cannot be reduced to a set of rules. In application one must consider the rights of the patient and of the physician, the duty of the physician to the patient and to the medical profession and the duty of both the physician and patient to the public. The subject has been simplified by a proposed revision of the Principles of Medical Ethics of the American Medical Association to be considered at the Clinical Meeting in December.

Not many years ago an important concern of medical ethics was proper respect of one physician for the opinion of another in regard to diagnosis. With the recent great advance in the science of medicine, diagnosis is upon a much more factual basis, thus eliminating a great deal of ground for controversy with its attendant ethical problems. At present probably the most common field of misunderstanding is connected with the referral of patients. As a rule this can be attributed to the manner of referral. The referring physician should be careful to designate whether he desires a special service, an opinion only, or complete treatment of the patient. Generally it is well for the patient to know the type of service expected of the physician to whom he is referred. A form has been devised by the Academy of General Practice to reduce the likelihood of misunderstanding in this field.

A patient is referred to a physician on account of his special knowledge and experience in some particular field. It is to be expected that in some cases the opinion of the examining physician will differ from that of the referring physician. In such case the examining physician must guard against disparaging the ability of the referring physician. The reason for the difference of opinion should be explained so that the confidence of the patient in his physician is maintained.

There can be no general rule as to what to tell a patient in case of serious illness, but certain ethical considerations must be borne in mind. The patient has a moral right to a knowledge of his condition; the physician is within his rights to refuse to misrepresent facts; the duty of the physician is to help the patient and to take every precaution against harming him. There is often a conflict of interests which must be resolved as best possible. What, when and how to tell the patient demands the utmost consideration due to the many factors involved. To deal further with this problem is beyond the scope of these remarks, except to say that an attitude of kindness and understanding is essential whatever course of action is decided upon.

William H. Prioleau, President

# Editorials

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## NATUROPATHY

On August 20 the Supreme Court of the State upheld the law recently passed which banned naturopathy in South Carolina. The attorney-general held that the law was designed to protect the public health of the state from practice of an art for which the practitioners could not produce suitable qualifications. As was expected the attorney for the Naturopathic Association gave notice of appeal to the Supreme Court of the United States.

Apparently seeing the handwriting on the wall, many, but not all, of the naturopaths have folded their tents and departed for new pastures. At the same time there appears to be an outburst of enthusiastic advertising by the chiropractors, who probably look with some glee on the vacancy created among the gullible public. It may be that for the moment the support of the legislators has been strained to its ultimate political possibilities, but inevitably the time must come for another effort in another direction.

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## THE FLUORIDE FIGHT

All over the country there has been much talk about the virtues, or horrors, of adding fluoride to water supplies for the purpose of building stronger teeth for our children, or, according to the opponents, for the purpose of producing dreadful effects on the unsuspecting public. The arguments have been aired in our own newspapers of the cities in which the measure has been proposed. They have been sometimes violent, and in many cases rather critical of the knowledge and intelligence of the medical profession.

It is hard to sift out the whole evidence without detailed technical knowledge of the effect of fluoride. As in all such matters it seems best to go to the writings of the people who by long and careful study should know most about the subject, one which has long been under investigation.

As far as can be judged, the case might be rested on a few facts, or as near facts as can

be determined by present well tried information.

First, there is no proof that fluoride in the amount recommended has any harmful effect.

Second, there appears to be excellent proof that fluorides added to drinking water in proper amounts will affect the structure of children's teeth so that decay is reduced to a very large extent.

Third, in areas where fluorides occur naturally in the amounts estimated as effective, there is a lower incidence of caries than in other localities.

Much of the public argument has involved a questioning of these facts, and the production of numerous expressions of fear of the harmful effect of fluorides. Little of it has come from qualified medical sources, most of it from people who know about as much about the place of fluoride in human physiology as a cat does about Christmas. Some of it comes from medical people who have sincere convictions but little scientific evidence to bolster them. Respect must be given to their opinions and to the experience of some few communities which have abandoned fluoridation for reasons which are not at present entirely evident or definitely medical.

What has been queried chiefly is the matter of compulsory use of treated water by those who do not approve of fluoridation. The more politically conscious members of the profession cry that such compulsion is undemocratic and dictatorial, and that bad teeth and toothaches are not in the field of public health—a rather outmoded point of view which seems to consider that public health is still concerned chiefly with miasmata, fumigation, and quarantine. One wonders whether proper medical guidance is not more valuable than public opinion based on indifference, misinformation, or cultivated prejudice. Were we to encourage the public to review and legislate on such a matter of public health as smallpox vaccination, we could well expect many of the next generation to creep in pustular horror to their

early graves and the rest to be as pockmarked as George Washington.

South Carolina communities have considered the matter of fluoridation lately. The Spartanburg Board of Health proposes to furnish fluoride tablets to children whose parents want them rather than to treat the city water supply. Charleston voted for fluoridation by a considerable majority, but City Council did not carry out the wishes of its people, and discovered to its great satisfaction that the artesian wells available inconveniently to nearly everybody in the city provided water with an adequate content of fluoride. It is hard to visualize the children of Spartanburg taking their daily tablets and the parents of Charleston forming lines to wait their turn for the healing waters of the few available wells.

Discussing fluoridation, Dr. Walter Alvarez has this to say—"What puzzles me is why, when a city pays able experts in public health to keep the people healthy, more of these people do not leave matters of health in the hands of the experts. Why should the people who know nothing about these problems insist on making the decisions in regard to them. Why should they demand to vote upon the issue? I might as well demand a voice in the designing of a new tunnel under the Hudson river." And with this point of view we should be in agreement. It would seem to be the position of the Armed Forces, The Public Health Service, many many communities and of most people who have inquired thoroughly into the question.

The following have been appointed by Dr. Prioleau to the Committee to make recommendations regarding practice by graduates of non-recognized medical schools, and foreign physicians here on temporary basis: Dr. Sam O. Cantey, Chairman; Drs. Gordon Able, W. P. Beckman, George Dawson, Cheves Smythe, and James McQuown.



## "A SMALL LEAK WILL SINK A GREAT SHIP"

G. WESTBROOK MURPHY, M. D.  
Asheville, N. C.

Read before the First General Session, Medical Society of the State of North Carolina, Pinehurst, May 1, 1956.

This pertinent article is reprinted with permission from the North Carolina Medical Journal of June 1956. Introductory remarks and one other very short section have been omitted. — The Editor

### *Threats to the Private Practice of Medicine*

Ours is a time of great struggle. The East is arrayed against the West, liberal against conservative, socialism against private enterprise, labor against capital, and Negroid against Caucasian. Of more immediate concern to us is a determined effort by numerous lay interests to assume control of the practice of medicine in North Carolina and the United States.

With every fiber of my being I believe that the unlimited choice of physician, the free selection of patient, the unqualified responsibility of physician to patient, the unhampered exercise of professional judgment, and the direct reward for individual initiative form the only possible basis for the acceptable medical care of free men. On every passing day these essential qualities are being degraded and the perimeter of private practice is being constricted. Those who are about to destroy our system of practice fall into a number of diversified groups but they have at least one thing in common. As organizations they are not "natural persons." Therefore they have no souls, they have no consciences, they cannot exercise professional judgment, and they are impersonally ruthless.

As a rule they operate behind screens of well meaning laymen who are largely unaware of their true objectives. Often they have the assistance of physicians who do not comprehend the devastating end results of their policies.

Generally, they are so well organized as to demand and secure conformity from their component units.

There is nothing vindictive or punitive in their attitude toward medicine. Unfortunately we are "caught in the middle" as we stand in the way of their expanding programs. The day is not far off when industry, labor, govern-

ment, insurance companies, hospitals, and related groups will combine in their campaign to control all health activities. If we are not organized into a position of strength, private practice, as we have known it, will cease to exist.

I will give to you a number of illustrations and endeavor to make some observations which will convince you beyond reasonable doubt that the private practice of medicine in North Carolina is in imminent danger of losing its status as a professional art and is being forced into the mold of a trade. The very keystone of practice is the patient-doctor relationship. The respect of patient for doctor and the influence of doctor with patient are the primary targets at which all attacks are directed.

#### *Industrial and labor groups*

As illustrated by the Kaiser Medical Service Plan on the West Coast and by a proposed plan of the Atlantic Coastline Railroad in Wilmington, industry over the nation is building a series of hospitals and is organizing medical service plans for employees and their dependents, which are staffed by salaried and closed panel physicians.

Labor also is establishing hospitals and complete medical service plans, staffed by salaried and closed panel physicians, to care for their members and their dependents.

At a recent congressional hearing, Frederick F. Umbrey, executive secretary, The International Ladies Garment Workers' Union, complained of the lack of cooperation from physicians and recommended that the Sherman Antitrust Act be so amended as to include medical and hospital services.

Dr. Edwin F. Dailey, vice president of the Health Insurance Plan of greater New York has predicted that organized labor will soon establish the pattern of medical care in the United States.

#### *Federal and state encroachments*

The Veterans Administration is providing hospital care and medical service for an ever increasing number of non-service connected disabilities. It is not impossible that within the near future dependents of veterans will be included.

The vast Social Security system now provides cash payment and medical and remedial care for needy individuals 18 years of age or older when permanently and totally disabled. It seems quite likely that by means of House Resolution 7225 the Social Security Act will be so amended as to provide cash benefits to workers 50 years of age and older who are totally and permanently disabled. These people will, of necessity, have their disability certified by private physicians at government expense.

Medical and hospital care for federal employces and their dependents and for members of the armed forces and their dependents is being expanded at a tremendous pace.

The use of federal funds for medical schools, hospitals, and clinics has increased to an alarming degree, and the end is not in sight.

The North Carolina Department of Health is ever encroaching further on the private practice of medicine.

Immunization and the diagnosis and treatment of tuberculosis are now largely in the hands of the health department.

The belief that industrial medicine should be a health department activity is held by many officials.

In his report to this society in 1955 Dr. J. W. R. Norton, our State Health Officer, indicated a trend when he suggested that non-communicable diseases such as cancer, nephritis, diabetes, arthritis, and cardiovascular disease should be brought under health department control.

I quote two paragraphs from his report:

We are now at about the same stage of medical knowledge regarding these chronic, non-communicable disorders at which our predecessors found themselves when joint efforts of private practice and public health began to be coordinated against the communicable diseases. We are afforded the opportunity to proceed humanely and cooperatively, as was done so successfully against the infectious diseases.

The work of the private practitioner will be just as ethical and much more satisfying as all chronic disorders are promptly diagnosed and control efforts are made more effective. Our state is in a strategic position to lead the way in combatting chronic, non-communicable disorders and accidents, just as private practitioners and the public health team joined hands to pioneer in communicable disease control.

The State of North Carolina maintains a large university clinic and hospital which accept patients of all classes. To the best of my knowledge, professional fees are then diverted to some degree into university funds. Thus, physicians are employed by the state, given the prestige of a connection with the university, and maintained in active competition with private practice.

#### *Other groups*

The national organization of the optometrists is asking for the passage of state laws which would limit refractions to licensed optometrists. Ophthalmologists would thereupon be required to secure such licenses.

There is reputed to be an active national organization of attorneys which undertakes to train its members in refuting medical testimony and in securing larger judgments in professional and other liability cases.

#### *Supervision by hospitals*

The American Hospital Association is adopting the concept that the hospital should be the purveyor of all health services in the community, and that all who render service, including physicians, should be salaried employees.

Local doctors believe that the Virginia Hospital Association is about to sponsor an act in the state legislature which would specifically authorize hospitals to employ all categories of physicians.

Until stopped by the Insurance Commissioner, a group of hospitals in New York forced the medical staffs to turn over to administrators the fees for services rendered in industrial cases in their institutions.

It is becoming more and more prevalent for administrators to attempt to direct the treatment given to patients, including the ordering of special examinations, in order to increase hospital income.

A California hospital has demanded that staff members submit their private books for audit. The board of another hospital passed a regulation forbidding the medical staff to meet for even a social gathering unless the administrator was present.

I have been told directly by one of those involved that Jefferson Medical College recently dismissed four outstanding members

of its teaching and hospital staff who refused to engage in financial practices which were unethical and in competition with private physicians.

There are hospitals in North Carolina who hire physician-employees so that the differences in fees collected and the salaries paid provide a source of income for the institutions.

One North Carolina hospital passed and attempted to enforce a regulation requiring that the medical staff turn over to the hospital from 10 per cent to 50 per cent of moneys earned in private practice within the institution.

Another North Carolina hospital tried to enforce a rule which would require physicians to purchase staff appointments at the rate of \$500.00 each.

#### *The Medical Care Commission*

The Medical Care Commission was created with the blessing of the Medical Society of the State of North Carolina. We are all familiar with how the dispensing of construction funds and the use of the hospital licensing power have brought North Carolina hospitals under the dominance of the Commission to a remarkable degree. Now the Attorney General of the State of North Carolina has written an opinion concerning hospitals and the Medical Care Commission which I quote in part:

It is my opinion that the Legislature authorizes hospitals licensed under the Act to prescribe the qualifications for those who treat the sick in the hospital and that as a part of its power the hospital may arrange with physicians and surgeons for the treatment at the hospital at fair and reasonable cost.

Need I say that the prospect of seeing the hospitals and the Medical Care Commission authorized to direct treatment given by, and to set the fees of physicians who care for patients in hospitals which are licensed by the Medical Care Commission is a frightening specter? The North Carolina Industrial Commission, commercial insurance companies, Blue Cross Plan and, yes, even Blue Shield use the power of the purse to prescribe to a considerable degree how, when, and what treatment shall be given to patients covered by their insurance policies. At this moment, we find ourselves "on the sidelines, listening to representatives of insurance companies,

bargaining with labor and management on fees, rates, coverage and services. The representatives of labor and management will insist on complete services for as little as possible. Labor will represent millions of people. Business will represent the greatest part of the money behind the plan. Representatives of the insurance companies will try to satisfy both and you will have nothing to say about it providing you will have agreed to participate."

### *Alternative to Appeasement*

Beginning about 1935, the federal government, as later led by Mr. Oscar Ewing, undertook to nationalize and socialize medicine in the United States. In an effort to belittle the profession in the eyes of the public an organized campaign of vilification was begun. From then until now we have followed a plan of apology and appeasement. It has not worked for medicine any better than a similar plan has worked for the United States in world affairs.

We have behaved like a flock of stupid chickens under the shadow of the hawk. As individuals we have scurried for the nearest cover or crouched in trembling terror with little thought of defense and less care for the welfare of our fellows. In my opinion, the time for apologies has passed. We should use our minds and our hearts to determine what is best for those we serve and what is best for the medical profession, and then follow the prescribed course without regard for the inevitable obstacles which we will encounter.

We live in a society which is largely controlled by tightly organized groups, and I submit to you the hypothesis that in it only an organized group can survive. In the eyes of the public we are, and I use the ugly word, a union. We bear the excoriation and censure which is often heaped upon unions, but we have not had the advantages which come from union organization. I do not suggest that now or ever in the future we refuse to give our best professional services to all the sick who need us. I do suggest that we use the power of this organization to control the social and economic circumstances under which our services are rendered when a third

party intervenes between physician and patient.

Many of you who are of my generation will, as I did, draw back in horror from this idea which will seem to you to be a prostitution of medical ideals. To you I say that after months of soul-searching I am convinced there is no other way. Many of you of a younger generation will resist this idea, because you will see in it factors which will disturb your present conditions of practice. To you I say that you must choose between submitting to a considerable degree of intramural discipline or else finding yourselves forever displaced to the level of the artisan. To all of you I say that if you have a better plan of procedure, your profession has never needed the fruits of your hearts and brains more than at this moment.

Careful consideration may convince you, as it has me, that we must capitalize on the one privilege which is generally conceded by the courts and which is thoroughly incorporated in our legal structure—namely, the right to use organizational membership to control the conditions of gainful employment.

I propose specifically that the Medical Society of the State of North Carolina create a commission of the five most level-headed, most astute, most dedicated, and most courageous men to be had to undertake the continuing task of planning an immediate and a long-range defensive and offensive program designed to preserve the private practice of medicine in North Carolina.

### *Conclusion*

1. Our social and economic order is largely controlled by highly organized pressure groups and in it only such groups can hope to maintain their integrity. This situation is most unfortunate, but it cannot be changed. It must be accepted.

2. The Medical Society of the State of North Carolina must recognize and acknowledge the gravity of the situation.

3. As we stand idly by, our rights and privileges and our immunities are being bargained away by representatives of labor, industry, Government, insurance companies and

hospitals. I propose that the Medical Society of North Carolina assume the prerogative of doing its own negotiating with third party agencies.

4. "Freckles would make a very respectable coat of tan if they could only get together."

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## NEWS

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The State Board of Health has organized a division of sanitary engineering, Dr. G. S. T. Peebles state health officer announced. This division formerly was a section under the division of administration.

Director of the new division will be W. T. Linton who also will continue his present duties as executive director of the State Water Pollution Control Authority.

This combination of service does not change the status of either the Water Pollution Control Authority or the activities of the executive committee of the State Board of Health, Doctor Peebles said. The change was made by agreement of the executive committee of the Board of Health, and the Water Pollution Control Authority.

C. W. Harrell, chief of sanitarians, was appointed as assistant director of the division of sanitary engineering. He will be succeeded by Charles E. Corley, chief of insect and rodent control, who also will serve as chief of sanitarians.

Section chiefs in the Division of Sanitary Engineering include the former acting chiefs, E. T. Ammons, retail food establishments; William Weston, milk and shellfish; C. G. Leonard, bottling plants and frozen desserts; D. D. Taber, bedding inspection; and W. P. Boylston, wholesale food processing.

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Addition of two members to the State Hospital's staff was announced by Supt. Dr. William S. Hall.

Dr. Boris Gertz, formerly of Florida, is a new member of the psychology staff.

Miss Ann W. Howe, Charleston, has assumed the new position of music therapist.

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Dr. Z. Agardy, for the past two years house physician at St. Francis Hospital, Greenville, has become an assistant physician at the South Carolina State Hospital.

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Dr. William C. Cantey of Columbia has been appointed surgical consultant by the Surgeon-General of the U. S. Army recently. He visited Panama and Puerto Rico army installations and the Navy hospital at Coco Solo.

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Capt. J. O. Beasley, Jr., a native of Charleston, has

relieved Maj. Roy P. Sandidge as surgeon in charge of the U. S. Public Health Service out-patient clinic.

Capt. Beasley, a senior assistant surgeon, is a 1955 graduate of the Medical College of South Carolina.

The out-patient clinic at the Custom House, Charleston, treats Coast Guard personnel, merchant seamen and other government workers.

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Dr. Wallis Cone of Williston is the new chief-of-staff at the Barnwell County Hospital. His selection was made at a meeting of the doctors of the county at the hospital recently.

Dr. E. R. Wallace, III, of Barnwell is assistant chief-of-staff and Dr. L. W. Anderson of Williston is the new chief of surgery.

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The Pee Dee Medical Association held a supper meeting at the Plaza in Bennettsville on Thursday evening, July 19. This annual affair has become by tradition and popular request a lobster supper.

During the evening Dr. John Hawk of Charleston spoke.

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Dr. Joe E. Freed, State Hospital physician has become the president of the South Carolina State Employees Association.

Dr. John M. Preston of the State Board of Health was elected vice president.

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Dr. Jack W. Rhodes has been called back into the Navy for a tour of active duty in the medical corps. A reserve lieutenant, he reported in July to the naval base at Portsmouth, Va., where he is on temporary duty pending further orders.

Dr. Rhodes came to Summerville to practice following service in the Navy in World War II. Two years ago he closed his office to take a post-graduate course in pediatrics at Roper Hospital in Charleston. He completed that work in June.

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Dr. John S. McCutcheon, son of Mr. and Mrs. Schubert McCutcheon of Charlesworth Avenue, has become associated with Dr. Charles S. Kollar in the practice of Anesthesiology in Greenville.

Offices of the anesthesiologists are located at 423 Vardry Street in Greenville.

Dr. McCutcheon, a native of Durham, N. C., lived in Spartanburg for 25 years. He was educated in city schools and received his A. B. degree from Wofford College and his M. D. degree from the Medical College of South Carolina in 1953.

He served his internship at Greenville General Hospital and this month completed a two-year residency in anesthesiology at Columbia-Presbyterian Medical Center, New York City.

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Dr. Don A. Richardson has returned to Seneca to practice medicine with Dr. Francis B. Adams. Dr. Richardson is a graduate of the Medical College of

South Carolina. He completed internship duties recently at the General Hospital in Indianapolis, Ind.

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Dr. Julian Edgar Atkinson, who reported recently as an assistant physician at the South Carolina State Hospital, has been assigned to the women's service, Columbia Division. A native of Edgefield, Doctor Atkinson is an alumnus of The Citadel and received his medical degree from the Medical College of South Carolina. He has just completed a rotating internship at the Milwaukee County General Hospital, Milwaukee, Wis.

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Dr. Ambrose Gonzales Hampton, Jr., Sumter County native, has begun the practice of internal medicine in Columbia, with offices at 1840 Hamton Street.

Entering the Citadel he was graduated in 1948. From 1944 to 1946, he served with the U. S. Infantry in Europe.

Dr. Hampton then entered the Duke University School of Medicine, from which he was graduated in 1952. He served his internship and residency at University of Virginia Hospital, then became instructor in medicine at Tulane University, and attending physician at Charity Hospital there. He held a clinical fellowship in cardiovascular disease. His service in New Orleans completed, he then came to Columbia to begin practice.

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Dr. Ralph G. Ellis, Jr. has opened offices for the practice of medicine in the Health Center Building, Aynor, S. C.

He was graduated from Erskine College and the Medical College of South Carolina. His resident intern work was done at General Baptist in Atlanta, Ga.

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Dr. John Y. O'Daniel has opened an office in Gaffney.

Dr. O'Daniel, who recently operated a private hospital at Ellijay, Georgia, is a graduate of Presbyterian College at Clinton and of the Medical College of South Carolina.

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Dr. Donald G. Kilgore, a diplomate of the American Board of Pathology, is now associated with Dr. E. Arthur Dreskin in the practice of pathology, the publicity committee for the Greenville County Medical Society announced recently.

Their offices are located in Greenville General Hospital.

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Dr. Sydney A. Garrett has announced that he will open his clinic at 102 Garvin Street, Pickens. This is the clinic which was formerly used by Dr. P. J. Moore, Jr., while he was in Pickens.

Dr. Garrett is a graduate of The Medical College of South Carolina. After completing his internship

at Columbia last year Dr. Garrett moved to Pickens.

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Dr. James Carson, who a few years back practiced medicine in Walhalla for some time, has now returned to Oconee county and will open an office in Seneca. Dr. Carson, who pointed out he is a grandson of Indian Scout Kit Carson, also recalls he knew well such characters as Annie Oakley and Buffalo Bill when he was on the medical staff of the old Barnum and Bailey Circus.

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Dr. Mary Elizabeth Blanchard, formerly of Bishopville has begun her practice at the office of Dr. Robert B. Bultman in Sumter.

She is a graduate of Winthrop College, received her medical training at the Medical College of South Carolina, interned at Temple University Hospital, and has just completed her residency there.

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Dr. Lee W. Milford, Clemson College physician for 30 years and eight months, retired August 31 as director of the student health service, an operation that grew from an eight-bed sick bay to a 50-bed campus hospital during his tenure. He will return to private practice, go fishing on a regular basis and spend more time with an expanding family.

Dr. Milford, a 1917 graduate of Emory University, came to Clemson Jan. 1, 1926, inheriting a part of the present building with accommodations for no more than 10 patients. Equipment was inadequate. One of his first moves was the purchase of an x-ray machine. "I wouldn't try to practice medicine without it," he said.

Today the enlarged Clemson hospital is comfortably equipped with modern conveniences and can expertly attend 50 patients at one time. There are times, however, when the building is highly taxed for space. "Epidemics have been our greatest fear," Dr. Milford states. One of the worst, several years ago, sent 263 students to bed simultaneously with influenza.

A former chairman of the athletic council at Clemson, and a faculty representative in the Southern Conference for 26 years, he was a leader in the organization of the yet-infant Atlantic Coast Conference and one of four to write the conference constitution and by-laws. He served three terms as president of the Southern Conference and was instrumental in organizing a booking office of conference officials.

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The Annual Meeting of The South Carolina Pediatric Society was held in Columbia on September 10 and 11. Officers elected last May took their chairs: Dr. William R. DeLoache of Greenville, President; Dr. Fred F. Adams, Jr., of Spartanburg, Vice-President; and Dr. C. Guy Castles of Columbia, Secretary-Treasurer.

At the same time there was held a meeting of the South Carolina Chapter of The American Academy of

Pediatrics. Dr. Walter Hart, Florence, was elected State Chairman, and Dr. Clarence Lyles, Spartanburg, was elected Secretary-Treasurer.

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## ANNOUNCEMENTS

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ARE YOU MAKING PLANS NOW TO ATTEND  
THE A.M.A. CLINICAL SESSION IN SEATTLE,  
NOVEMBER 27-30?

The American College of Obstetricians and  
Gynecologists

Chicago Meeting, November 7-9, 1956

Round Table discussions and Breakfast Conferences will again highlight the meetings of the American College of Obstetricians and Gynecologists at the Fifth Annual Clinical meeting to be held at The Palmer House, Chicago, Illinois, on November 7-9, 1956. Officers for South Carolina are: Chairman, J. Decherd Guess of Greenville and Vice-Chairman, Arthur L. Rivers of Charleston.

The National Foundation for Infantile Paralysis announces that postdoctoral fellowships are available for full time study in preparation for careers in either research or academic medicine, or in the clinical fields of psychiatry; rehabilitation; orthopedics; the management of poliomyelitis and preventive medicine.

Financial support of the Fellow varies and compensation to the institution is arranged according to the program undertaken. For a full academic program, tuition and fees are paid; for other programs, a sum not to exceed \$1,250 per year including tuition.

All awards are made upon recommendation of the appropriate National Foundation Fellowship Committee.

Financial benefits, in addition to the compensation to the institution, vary from \$3,600 to \$6,000 a year. Under unusual circumstances, higher stipends may be permitted. Transportation not to exceed \$600 may be paid if foreign study is approved.

The National Foundation has authorized the expenditure of \$23,500,000 since 1938 for scholarships and fellowships, and for aid to educational institutions, professional organizations, and related activities.

For further information write to:

Division of Professional Education  
The National Foundation for Infantile Paralysis  
120 Broadway, New York 5, New York

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### EXAMINATIONS FOR MEDICAL OFFICERS UNITED STATES PUBLIC HEALTH SERVICE

A competitive examination for appointment of Medical Officers to the Regular Corps of the United States Public Health Service will be held in various places

throughout the country on November 27, 28, 29, and 30, 1956.

Appointments provide opportunities for careers in clinical medicine, research, and public health. They will be made in the ranks of Assistant and Senior Assistant, equivalent to Navy ranks of Lieutenant (j.g.) and Lieutenant.

Entrance pay for both grades with dependents is \$7,498 per year and other benefits.

The Sister Elizabeth Kenny Foundation announces a program of post doctoral scholarships to promote work in the field of neuromuscular diseases. These scholarships are designed for scientists at or near the end of their fellowship training in either basic or clinical fields concerned with the broad problem of the neuromuscular diseases.

The Kenny Foundation Scholars will be appointed annually. Each grant will provide a stipend for a five year period at the rate of \$5,000.00 to \$7,000.00 a year depending upon the Scholar's qualifications. Candidates from medical schools in the United States and Canada will be eligible.

Inquiries regarding details of the program should be addressed to: Dr. E. J. Huenekens, Medical Director, Sister Elizabeth Kenny Foundation, 2400 Foshay Tower, Minneapolis 2, Minnesota.

The semi-annual meeting of the Industrial Medical Society of South Carolina will be held Thursday, November 8, 1956 at the Jefferson Hotel, Columbia, South Carolina beginning at 2:00 P. M.

This meeting is held annually in connection with the Safety Conference sponsored by the South Carolina Industrial Commission.

All members of the South Carolina Medical Association are cordially invited to attend.

The program is a diversified one dealing with various phases of industrial medicine and surgery.

An Adjuster will discuss the reporting of accidents. Two Attorneys, one usually representing the defendant and one usually representing the plaintiff, will discuss the Doctor on the Witness Stand. The medical and surgical portion of the program will deal with Industrial Dermatoses, which is becoming more of a problem, and hand injuries, which comprises so large a part of industrial accidents.

The program follows:

- 2:00 P.M. Coordination; Employer-Doctor-Carrier—Cliff Anderson, American Mutual Liability Insurance Company
- 2:30 P.M. Simplification & Clarification of Medical Testimony, Thomas B. Whaley, Attorney
- 3:00 P.M. The Responsibilities of a Plaintiff's Lawyer to His Client—Henry H. Edens, Attorney
- 3:30 P.M. Hand Injuries—Dr. Robert F. Hagerty, Surgeon

4:00 P.M. Industrial Dermatoses—Dr. J. Richard Allison, Jr., Dermatologist & Allergist

The officers of the Association are:

Dr. Frank C. Owens, Columbia, S. C., President  
Dr. John T. Assey, Georgetown, S. C., Vice President  
Dr. Charles Hanna, Spartanburg, S. C., Secretary  
Dr. Frank Stalling, Greenville, S. C., Treasurer  
Dr. Wm. Edwards, Greenville, S. C., Exec. Committee  
Dr. George Orvin, Charleston, S. C., Exec. Committee

#### MEDICAL COLLEGE OF SOUTH CAROLINA TENTATIVE PROGRAM FOR POST-GRADUATE SEMINAR & FOUNDERS' DAY—1956

*Tuesday, October 30*

8:30- 9:00 Registration and Greetings  
9:00-10:00 Modern Management of Hypertension—C. Ford Rivers, M. D.  
10:00-11:00 Present Day Management of Asthma—Kelly T. McKee, M. D.  
11:00-12:00 Recognition and Management of Cerebral Vascular Accidents—Rhett Talbert, M. D.  
12:00-1:00 Management of Diabetes—John F. Buse, M. D.  
1:00- 2:00 Lunch  
2:30- 3:00 Erythroblastosis Foetalis: Treatment by Exchange Transfusions: Indications For and Results—B. Owen Ravenel, M. D.  
3:00- 3:30 The Management of Children with Hearing and Speech Defects from Point of View of Practicing Pediatrician—John C. Bonner, M. D.  
3:30- 4:00 Subdural Effusion—A Common Complication of Purulent Meningitis in Young Children—Walton L. Ector, M. D.  
4:00- 4:30 Trends in Routine Immunization—Abram Berry, M. D.  
4:30- 5:00 Antibiotics in Pediatric Practice—Joseph I. Waring, M. D.  
5:00- 5:30 Management of The Premature Infant—William B. Gamble, Jr., M. D.

*Wednesday, October 31*

9:00-10:00 Practical Value of Audiometry—Richard W. Hanckel, M. D.  
10:00-11:00 Pitfalls In The Treatment of Fractures—John A. Siegling, M. D.  
11:00-12:00 Acute Abdominal Injuries—Frederick E. Kredel, M. D.  
12:00- 1:00 Gall Bladder Disease—R. Randolph Bradham, M. D.  
1:00- 2:30 Lunch

2:30- 4:00 Panel: *Obstetrics*: Moderator, Lawrence L. Hester, Jr., M. D.  
Management 3rd Trimester Bleeding—Thomas G. Herbert, M. D.  
Current Trends in Treatment of Abortion—John R. Sosnowski, M. D.  
Premature Rupture of Membranes: Prognosis and Therapy—Watson C. Finger, M. D.  
Abruptio Placentae: Treatment—Julian A. Salley, M. D.

4:00- 5:30 Panel: *Gynecology*: Moderator, Lawrence L. Hester, Jr., M. D.  
Pelvic Relaxations: Significance and Treatment—James M. Wilson, M. D.  
Culdoscopy: Experience in 50 Examinations—Edward J. Dennis, M. D.  
Surgical Treatment in Carcinoma of the Cervix—Lawrence L. Hester, Jr., M. D.

7:00- 9:00 Round-Up Conference—Buffet Dinner

*FOUNDERS' DAY, THURSDAY, November 1, 1956*

8:30- 9:00 Registration and Greetings  
9:00-10:00 Recent Advances in the Treatment of Carcinoma of Breast—David M. Ihme, M. D., Professor of Surgery, Medical College of Virginia  
10:00-11:00 Diagnosis and Treatment of Hiatal Esophageal Hernia—Porter Paisley Vinson, M. D., Professor of Medicine, Medical College of Virginia  
11:00-11:30 Coffee Break: Alumni Association, School of Nursing  
11:30-12:30 Pruritus Vulvae—Walter L. Thomas, M. D., Professor of Obstetrics and Gynecology, School of Medicine, Duke University  
12:30- 1:00 Presentation of Plaque honoring  
WILLIAM L. PRESSLY, M.D.  
by  
The Reverend Dr. Robert C. Grier, Pastor  
Associate Reform Presbyterian Church  
Greenville, S. C.  
Past President of Erskine College  
1:00- 2:30 *Clinics*:  
"Peripheral Neuritis and Severe Paresis Complicating Nasopharyngeal Diphtheria"—John T. Paul, Jr., M. D.  
"Acute Abdominal Injuries"—Frederick E. Kredel, M. D.  
"Cardio-Vascular Surgery"—J. Manly Stallworth, M. D.  
"Clinics on Deafness"—Richard W. Hanckel, Jr., M. D.



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## WOMAN'S AUXILIARY

### SOUTH CAROLINA MEDICAL ASSOCIATION

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President: Mrs. E. Gordon Able, Newberry, S. C.

Bulletin Secretary: Mrs. Ritchie Belser, Charleston, S. C.

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#### OUTLINE OF OBJECTIVES, 1956-1957

1. **AMERICAN MEDICAL EDUCATION FOUNDATION:** To promote the interest of all the members in medical education and to urge each Auxiliary and each member to participate actively in financial support of the AMEF. To strive for a second AMEF Award of Merit.
2. **BULLETIN, NATIONAL:** Each member subscribe to this invaluable one dollar a year tool and read it to be better informed.
3. **CIVIL DEFENSE:** To prepare ourselves to care for our family and neighbors in case of emergency. To sponsor first aid and home nursing courses. To concern ourselves with the Civil Defense set up and offer to serve when needed.
4. **CONVENTION:** To greet old friends and make new ones. To review and appraise the work of the year and launch the new year's work. To be of every possible assistance to the chairmen.
5. **DOCTORS DAY:** Celebrated on or about March 30 to pay the tribute to our doctor husbands which we feel they so richly deserve.
6. **FINANCE:** To serve as a budget committee and plan wisely on the expenditure of funds, and to act as controller in maintaining the provisions of the budget.
7. **HISTORY:** To record the achievements and progress of the Auxiliary. To collect and preserve the biographies of deceased members of the Medical Association. To file and keep safe the historical records and other important materials in the Medical College library.
8. **JANE TODD CRAWFORD MEMORIAL FUND AND NURSE RECRUITMENT:** Advise nursing schools and the public of the availability of Loan Fund for student and graduate nurses. Intensify our Nurse Recruitment program through Future Nurses Clubs. To assist chairman with Future Nurses Club Rally. Institute measures necessary to enlarge this recruitment program to include allied fields, such as medical technology.
9. **LEGISLATION:** To assume our share of responsibility for safeguarding the ideals of American Medicine by keeping in touch with the Medical Association and being ready to assist under its guidance (1) to defeat detrimental measures and (2) to support good legislation.
10. **MENTAL HEALTH:** To work with county and state Mental Health Organizations especially during Mental Health Week in May. We hope each Auxiliary will devote a program to this important subject.

11. **ORGANIZATION & MEMBERSHIP:** Get the green light by securing the approval of the County and District Medical Societies for the organization of Auxiliaries where none exist. To proceed to organize where sufficient number makes it feasible, where not to secure members at large. To stand at least 1,000 members strong at the side of the South Carolina Medical Association by March 1, 1957.
12. **PROGRAM:** To make programs short, varied and stimulating. To incorporate group discussions proved successful at first round table conference. Under guidance of local advisory council, promote the health projects most suited to the needs of each community.
13. **PUBLICITY & PRESS:** To interpret the Auxiliary and its achievements (1) through the State Bulletin and the Auxiliary space in the Journal of the South Carolina Medical Association, both media so generously provided by the Association (2) through newspaper, radio and television.
14. **PUBLIC RELATIONS:** To help bring about greater understanding of the medical profession by the public. Catalogue members who hold key positions in other organizations for a list of Who's Who in the Auxiliary.
15. **SAFETY:** To work diligently toward prevention of accidents and injuries with special emphasis on traffic and home safety.
16. **STUDENT LOAN FUND:** To be maintained for the use of deserving sons and daughters of physicians who are or have been members in good standing of the South Carolina Medical Association.
17. **TODAY'S HEALTH:** To promote wide circulation of this publication of the American Medical Association, a most potent means of health education for the general public.

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Members of the executive board of the Woman's Auxiliary to the South Carolina Medical Association met in September and heard Dr. William H. Prioleau, of Charleston, president of the South Carolina Medical Association, as their guest speaker. He spoke on the problems that confront the medical profession today.

Also an honor guest at the luncheon was Dr. D. L. Smith of Spartanburg, president-elect of the Medical Association, and Mrs. Smith.

Mrs. E. Gordon Able of Newberry, president of the Woman's Auxiliary, presided at the luncheon as

# Nilevar\*

(BRAND OF NORETHANDROLONE)

## Searle's New and Practical Steroid Specifically for Protein Anabolism—

It has long been recognized that a substance which would promote protein anabolism would be of inestimable value in therapy. The androgens have this property, but unfortunately they also exert actions on secondary sex characteristics. These effects are commonly undesirable in therapeutic programs.

**THE FIRST STEROID WITH ANABOLIC SPECIFICITY—**Nilevar, the newest Searle Research development, therefore, meets a long desired clinical need because Nilevar presents the first steroid primarily anabolic for protein synthesis. Moreover, Nilevar is without prominent androgenic effects (only about one-sixteenth of that exerted by the androgens).

**OBJECTIVE AND SUBJECTIVE RESPONSE —**Orally effective, Nilevar therapy is characterized by retention of nitrogen, potassium, phosphorus and other electrolytes in ratios indicative of protein anabolism. Moreover, subjectively the patient observes an increase in appetite and sense of well-being.

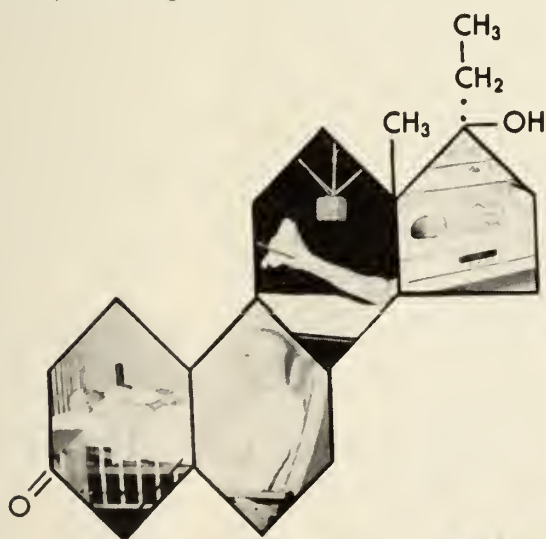
**WELL TOLERATED —**Nilevar has an extremely low toxicity. Laboratory animals fail to show toxic effects after six months of continuous administration of high dosages. Nilevar should not be administered to patients with prostatic carcinoma. Nausea or edema may be encountered infrequently. Slight androgenicity may be evidenced on high dosage or in particularly responsive individuals.

**MAJOR INDICATIONS—**Preparation for and recovery from surgery; supportive treatment of serious illnesses (pneumonia, poliomyelitis, carcinomatosis, tuberculosis); recovery from severe trauma and burns; decubitus ulcers; care of premature infants.

**DOSAGE—**The daily *adult* dose is three to five Nilevar tablets (30 to 50 mg.) but up to 100 mg. may be administered. For *children* the average daily dose is 1 to 1.5 mg. per kilogram of body weight; individual dosages depend on need and response to therapy.

**SUPPLY—**Nilevar is available in uncoated, unscored tablets of 10 mg. G. D. Searle & Co., Research in the Service of Medicine.

\*Trademark of G. D. Searle & Co.



SEARLE

well as at the business session which preceded the luncheon.

She heard reports from her officer staff, including Mrs. K. M. Lippert, first vice president, of Columbia; Mrs. Wallis D. Cone of Sumter, second vice president; Mrs. Wayne Reeser of Conway, third vice president; Mrs. John Martin of Anderson, fourth vice president; Mrs. Lawson Stoneburner of Greenville, recording secretary; Mrs. S. Edward Izard, Charleston, historian; Mrs. George Orvin, Charleston, treasurer; Mrs. R. E. Livingston, Newberry, corresponding secretary; Mrs. T. A. Pitts of Columbia, parliamentarian.

Reports from chairmen of standing and special committees were heard from Mrs. E. H. Thomason of Olanta, American Medical Education Foundation, who stated that the South Carolina Auxiliary received an award of merit at the national convention in June for being among the top 10 contributors per capita.

Reports were also made by Mrs. John M. Brewer of Kershaw, Mrs. J. A. Sasser of Conway, Mrs. Von Long of Newberry, Mrs. Ripon La Roche of Camden, Mrs. Ritchie Beltser of Charleston, Mrs. George Dawson of Florence, Mrs. Hugh W. Mole of Denmark, Mrs. George W. Smith of Columbia, Mrs. John T. Cuttino of Charleston, Mrs. B. M. Montgomery of Newberry, Mrs. Fritz N. Johnson of Mullins, Mrs. David Adecock of Columbia, Mrs. W. H. Williams of Rock Hill, and Mrs. Kenneth Lawrence of Florence.

Reports from county medical auxiliaries were given by their presidents, Mrs. Ned Camp, Anderson; Mrs. Vince Moseley, Charleston; Mrs. W. H. Powe, Jr., Greenville; Mrs. Kemper Lake, Whitmire; Mrs. Jay E. Hodge, Cheraw; Mrs. J. A. White, Easley; Mrs. L. C. Davis, Columbia; Mrs. Wilson Greene, Sumter; and Mrs. Alton J. Brown for Mrs. Thomas A. Murrah, of Rock Hill.

A nominating committee was elected, including Mrs. C. R. May of Bennettsville, chairman, Mrs. Wayne Reeser of Conway, and Mrs. John T. Cuttino of Charleston.

Mrs. Able gave recognition to Mrs. Kemper Lake as president of the Newberry County Auxiliary, which was hostess for the board meeting and luncheon. It has only 13 members.

Past presidents attending the meeting were Mrs. H. L. Timmons, Columbia, Mrs. R. M. Pollitzer, Greenville, Mrs. T. A. Pitts, Columbia, Mrs. D. F. Adecock, Columbia, Mrs. Kirby D. Shealy, Columbia, and Mrs. C. R. May, Bennettsville, immediate past president.

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## DEATH

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### DR. JAMES AUSTIN BALL

Dr. James Austin Ball, 81, of Charleston, professor emeritus of dermatology and medicine at the Medical College of South Carolina, died at his residence after a long illness.

Dr. Ball had been engaged in the practice of medi-

cine in Charleston from 1904 until his retirement in 1935. He was a member of the faculty of the Medical College during the same time.

A native of Cordesville, Dr. Ball was born June 19, 1875. He attended Porter Academy in Charleston and was a graduate of the College of Charleston, class of 1897. He graduated with first honors from the Medical College of South Carolina in 1900.

He interned at Roper Hospital for several months after his graduation and then accepted an appointment at the Willard Parker Hospital in New York City. Later he served as a resident physician at the Hospital for Contagious Diseases, St. Mark's Hospital and the Kingston Avenue Hospital, all in New York, before returning to Charleston in 1904.

He became engaged in the general practice of medicine and as a consultant in dermatology shortly after his return. He also joined the faculty of the Medical College at the same time.

He remained active in his college work and medical practice until 1935, when he suffered a severe illness and retired. He was named professor emeritus of dermatology and medicine by the Medical College shortly afterwards.

Dr. Ball was a member of the Medical Society of South Carolina, South Carolina Medical Association and the American Medical Association. He was also a member of the St. Cecilia Society and of St. Philip's Protestant Episcopal Church.

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The "First Meeting" of members of the United States Committee of The World Medical Association, held in Chicago, June 13, was an outstanding success. And, if the clearly expressed wishes of the more than 125 members who participated in this initial conclave are carried out, this meeting should prove portentous for the future of the U. S. Committee and its service to W.M.A.

A feature of the meeting was the introduction of two Committee members, Dr. Marvin Olson of Wittenberg, Wisconsin, and Dr. Edward P. Flood of New York City, who recounted their experiences in attending General Assemblies of W.M.A., and described their impressions of the values of W.M.A. both to the medical profession as a whole and to the individual physician who takes part in W.M.A. affairs through membership in the U. S. Committee.

Dr. Olson emphasized three areas in which he believes W.M.A. is vital to the future of American medicine: 1) as the voice and guardian of professional freedom for the doctor; 2) as the promoter of higher standards of medical education and service in all member nations; and 3) as a practical contributor to the cause of world peace. "Through the W.M.A.," Dr. Olson said, "the universal language of medicine can be made more articulate in the cause of world peace."

# The Journal

of the

## South Carolina Medical Association

VOLUME LII

November, 1956

NUMBER 11

## ANEURYSMS AND ACQUIRED OCCLUSIVE DISEASE OF THE AORTA

DENTON A. COOLEY, M. D., MICHAEL E. DE BAKEY, M. D.,  
AND OSCAR CREECH, JR., M. D.\*

Aneurysms and occlusive disease of the aorta constitute the most common and serious forms of aortic disease. Prognosis in both is poor and the symptoms produced are both serious and disabling. Death in aortic aneurysm usually results from aortic rupture and hemorrhage. Thrombo-obliterative disease, although not so lethal as aneurysm, produces progressive arterial insufficiency, possible gangrene of the lower extremities, and death from renal failure may ensue. Until relatively recently the surgical treatment of acquired aortic disease was unsatisfactory and effective palliation of symptoms was obtained in only a small proportion of cases. Recently, however, with the improvements in technics of vascular surgery, excisional treatment has been demonstrated to be a feasible and satisfactory means of dealing with such lesions. The purpose of this presentation is to discuss the methods of surgical treatment being used at present in treatment of aortic lesions and to make certain observations based upon our experience with 482 patients operated upon during the past five years.

### *Aneurysms*

Aneurysms of the aorta may be either sacciform or fusiform in type and arteriosclerotic in origin. The grave prognosis in aortic aneurysm

has long been recognized, and although this outlook varies somewhat depending upon the location and type of lesion, life expectancy in the majority of patients is less than one year from the original date of diagnosis. Various methods of medical and surgical treatment have been advocated from time to time in the past, but none has been very effective. At present, excision of aortic aneurysm offers the only curative method of treatment, and technics of aneurysmectomy are now relatively well developed. For sacciform aneurysms tangential excision of the lesion from the adjacent aortic wall with lateral aortorrhaphy is standard, particularly if it is located in the ascending thoracic aorta. Frequently in cases of this type severe pain results from encroachment upon mediastinal structures or sternal erosion, and complete relief of symptoms may be expected after removal of the aneurysm.

For fusiform aneurysm segmental resection of the aorta with replacement by homograft or synthetic prosthesis is used for lesions of the aortic arch, descending thoracic aorta, or abdominal aorta. Temporary aortic occlusion at these levels may be tolerated for varying periods of time during performance of the excision and grafting procedure. For aneurysms located in the proximal descending thoracic aorta, general body hypothermia should be used to prevent ischemic spinal cord damage during the period of aortic occlusion. Temporary by-pass shunts are used when the resection involves the aortic arch and carotid arteries or the proximal abdominal aorta and

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renal arteries in order to prevent cerebral or renal complications.

Arteriosclerotic aneurysms of the abdominal aorta characteristically involve the segment of aorta distal to the renal arteries extending to the aortic bifurcation and frequently the iliac arteries. In fact, the anatomic location of these lesions has been so uniform that it is no longer necessary to employ diagnostic aortography to determine operability, since among 215 abdominal aneurysms only three extended above the renal arteries proximally. Aortic occlusion at this level is well tolerated, and there is apparently only an insignificant threat of ischemic damage to distal tissues. Thus, hypothermia is not used for abdominal aneurysms.

Although death is almost inevitable following acute rupture of an abdominal aneurysm, many patients will survive for several hours or rarely for two or three days after perforation during which period emergency operation may lead to recovery. If a diagnosis of ruptured aortic aneurysm is made, operation should be undertaken promptly without elaborate measures to control shock. At the time of operation the patient's condition usually improves dramatically when the clamp is applied to the proximal aorta. Resuscitation from shock is then possible by using large amounts of blood augmented by vasopressor substance if necessary.

Dissecting aneurysm is a unique form of aortic disease in which partial rupture of the aorta may occur with separation of the medial coat and intramural spread of hematoma. Symptoms depend upon the extent and course of the dissection which usually originates in the ascending aorta or in the proximal descending thoracic aorta. In the most acute and severe form of the disease there is rapid dissection with death due to perforation of the outer lumen into the pericardium, mediastinum, pleura, or peritoneum. Uremia may occur if occlusion of renal arteries is produced by compression from the false lumen. In some cases a re-entry opening into the true lumen of the aorta occurs spontaneously and the dissecting process is automatically controlled, the aneurysm thus assuming the so-called "healed" or chronic stage. Whereas death occurs in 75

to 90 per cent of all cases of dissecting aneurysm, the remaining 10 per cent survive the acute phase for several months and sometimes years. Recently surgical treatment has been possible for dissecting aneurysms, the approach being directed toward creating a re-entry passage into the true lumen, thus obliterating the false lumen distally. In cases where the origin of the dissecting process is located distal to the origin of the left subclavian artery, a localized fusiform aneurysm is usually present which is resected and replaced by homograft or prosthesis after obliterating the distal false lumen by sutures. Most dissecting aneurysms occur in hypertensive patients, and after operation an effort should be made to control blood pressure to prevent further aortic dissection.

#### *Acquired Occlusive Disease*

Arteriosclerotic occlusive disease of the aorta most commonly affects the bifurcation, and Leriche more than 25 years ago described a syndrome of insidious thrombosis at this site. The common iliac arteries are apparently the site of predilection for the occlusive process which frequently extends proximally to the level of the renal arteries. Although renal insufficiency and uremia may result from this progressive thrombosis, most commonly the symptoms are related to arterial insufficiency in the pelvis and lower extremities. Thus, patients complain of sexual impotence and intermittent claudication involving primarily the hips and thighs. The disease usually affects males in the fifth and sixth decades.

The tendency for the occlusive process to remain confined to the aortic bifurcation and common iliac arteries is a favorable pathologic feature of the disease since repair or replacement of this area may completely restore circulation distally. Several methods of treatment may be satisfactory depending upon the extent and character of the disease. Thromboendarterectomy may be accomplished in well localized occlusions if the outer coats of the vessel are not involved. By carefully developing a plane of dissection the intimal and medial thrombosis and calcification may be peeled away. Resection of the aorta and iliac arteries must be done in many cases because

of extensive involvement of the vessel wall or where aneurysm coexists. The method of replacement under these circumstances is similar to that used in abdominal aneurysms. Still another method of treatment frequently employed is the use of permanent by-pass shunts around the occlusion. This latter method is particularly well suited to cases of diffuse incomplete occlusions involving also the external iliac arteries. Aortic to femoral artery by-pass shunts are effective in such cases and collateral blood supply is not sacrificed. By-pass procedures are usually easier to accomplish technically and are used more than any of the other methods at the present.

TABLE I

	No. Cases	No. Deaths	Per Cent
<b>Aneurysms</b>			
<b>Thoracic Aorta</b>			
Sacciform	22	8	36
Fusiform	35	12	34
Dissecting	15	3	20
<b>Abdominal Aorta</b>			
Ruptured	27	9	33
Nonruptured	188	16	8
<b>Occlusive Disease</b>			
Thoracic Aorta	18	1	6
Abdominal Aorta	176	7	4
<b>Neoplasm</b>	1	0	--
<b>Total</b>	482	56	11

Results

During the period from July 1, 1951, to May 1, 1956, we operated upon 482 cases of aortic disease exclusive of simple adult type coarctations (Table I). As seen from the table of results operative mortality for aneurysms is significantly higher than for occlusive disease because of a number of factors. For example, average age in the patients with aneurysm was significantly higher than the group with occlusive disease, and frequently there were complicating cardio-respiratory and renal factors which limited the patient's ability to withstand major surgical procedures. Indeed, many of the patients were in the terminal

stages of their aortic disease at the time of operation. For example, 27 patients were operated upon following acute rupture of an abdominal aneurysm. In this group death occurred after operation in 9 patients, usually due to renal failure, but salvage of the remaining 18 patients (67 per cent) was particularly significant in these hopelessly doomed cases. Similar circumstances account for the mortality in dissecting thoracic aneurysms, but again 80 per cent of these patients survived this serious form of aortic disease and are relatively free of symptoms and well at the present. Patients in this series of operations for aneurysm were an unselected group in which operation was undertaken with scant regard for age, history of renal, cardiac or pulmonary disease. It is not surprising that mortality following operation for abdominal aneurysm was twice as high in patients more than 70 years of age than for younger patients. Particularly gratifying, however, is the fact that with increasing experience significant improvement in operative mortality has resulted. This is exemplified by the progressive decrease in mortality from over 20 per cent in our early experience to less than 5 per cent during the past two years. Indeed, in the past 50 consecutive cases of abdominal aneurysm there has not been a death. In those patients followed for periods of one to three years the results have been good in most cases without recurrence of aneurysm.

Results following operation for thrombo-obliterative disease of the aorta have been highly gratifying. Prompt relief of manifestations of arterial insufficiency were observed with restoration of pulses in the lower extremity in well over 90 per cent of cases. Moreover, follow-up observations extending over several years indicate that these good results are maintained in the majority of patients. The risk of operation in abdominal occlusions is only 4 per cent, further justifying our conviction that operations of these types are indicated for this condition.

# HYPOTHERMIA

## A Review of The Cardiovascular Effects of Hypothermia\*

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### PART II\*

One of the inevitable consequences of deepening hypothermia is ventricular fibrillation. The primary cause is completely unknown. Attempts to find the primary cause as well as possible contributing secondary factors have not been very successful. Hegnauer, D'Amato and Flynn (1951) have reported that the presence of cardiac catheters increases the incidence of fibrillation. Riley, Barila and Hughes (1956) reported that with thiopental anesthesia in immersion hypothermia experiments on dogs, there was a lower incidence of ventricular fibrillation and a lower mean temperature at which the fibrillation occurred when compared to pentobarbital anesthesia. Others have reported that results with ether were similar to those obtained from thiopental.

Attempts to prevent ventricular fibrillation or to reverse existing fibrillation have been met with varying degrees of success. Covino, Charleson and D'Amato (1954) failed to protect hypothermic dogs from fibrillating with the use of adrenergic blocking agents or venesection. In a recent study Covino, Wright and Charleson (1955) have presented evidence to show that Dacorene, B-(2 biphenyloxy)-ethyl-diethylamine HCl, an antifibrillatory drug, may be useful in preventing ventricular fibrillation in the hypothermic dog. In the same study they showed that diphenylhydantoin (Dilantin) was ineffective in controlling fibrillation at non-toxic dose levels and that procaine amide induced fibrillation in all hypothermic dogs tested. Prevedel, Montgomery and Swan (1954) have stated that neostigmine (Prostigmine) was an effective antifibrillatory agent when given by coronary perfusion, and that when used by this method in the fibrillating animal will allow conversion to a normal rhythm by massage and electric shock. Senning and Kaplan (1956) were able to demon-

strate that intravenous alcohol in young dogs decreased the incidence of spontaneous ventricular fibrillation during cardiac occlusion.

Brewin (1954) in England has defibrillated dogs with intraventricular injections of nor-epinephrine, massage and electric shock. Schafer, Hughes and Darila (1955) in recent studies have defibrillated dogs which had fibrillated for as long as four to five hours with massage, warm saline bathing of the pleural cavity and electric shock. These most interesting experiments indicate that fibrillation of long standing in the hypothermic animal can be reversed successfully. Kirby, Jenson and Johnson (1954) have also reported successful attempts at reversing fibrillation with coronary perfusion of Prostigmine.

Senning (1952 and 1955), on the other hand, has induced ventricular fibrillation in dogs cooled to 25.5° to 28°C. After carrying out various surgical procedures he has reversed the fibrillation with massage, procaine injection into the right auricle followed by epinephrine and finally electric shock. Upon conversion of the ventricular fibrillation the dogs were rewarmed. All animals (ten) survived the procedure. Senning concludes that if controlled properly, ventricular fibrillation makes it easier to perform the intracardiac surgery and that the procedure is less harmful to the fibrillating heart than to a slow, strongly-beating heart. Shumway and Lewis (1956) have recently carried out a similar study involving 82 dogs and obtained essentially the same results. They do not concur, however, with Senning's thesis that induced ventricular fibrillation should be done in clinical cases. They feel that the clinician should be prepared to accept the risk of ventricular fibrillation in performing surgery under conditions of hypothermia, and that with maintenance of adequate oxygenation of the myocardium reversal of ventricular fibrillation can be easily accomplished.

Niazi and Lewis (1954) in a series of papers

\*Part I of this review appeared in the preceding issue of this Journal.

have attempted to prevent fibrillation by varying the degree and type of respiratory ventilation. They have found that 5 per cent carbon dioxide and oxygen and good ventilation, as opposed to hyperventilation with 100 per cent oxygen, maintained blood pH at normal or slightly above normal levels and decreased the incidence of fibrillation. On the other hand, if cardiac standstill can be achieved and maintained, the experimental animal (dog) can safely be taken to lower hypothermic temperatures. This was best achieved with oxygen and carbon dioxide (5 to 10 per cent) mixtures and good ventilation. In such a manner blood pH changed from normal levels to high levels (7.7 to 8.1) at about 25°C. and standstill was accomplished shortly thereafter. In this way, the hypothermic dog could be safely taken to temperature levels below 10°C.

Recent studies of ventricular fibrillation have presented some interesting results. Riberi *et al.* (1955) and Riberi, Siderys and Shumaker (1956) have shown that sino-auricular blockade with procaine was very effective in preventing ventricular fibrillation in healthy hypothermic dogs. The animals were subjected to external and internal cardiac stimuli. The results showed that of eleven untreated control animals, nine died of fibrillation, while of eleven procaine-treated animals only two died, and in each instance the death was due to post-operative respiratory complications and not to ventricular fibrillation. In a second paper by the same group of investigators, Shumaker *et al.* (1956) showed that bilateral sympathetic denervation of the heart prevented fibrillation in all of fifteen dogs treated in this manner. A second series of fifteen dogs was treated with intravenous or intracardiac trimethaphan camphorsulfonate (Arfonad) prior to cardiac surgery and only two developed fibrillation. Further studies demonstrated that stimulation of the right vagus nerve provoking adequate bradycardia prevented fibrillation in ten of fifteen animals, while complete cardiac denervation prevented fibrillation in nine of fifteen animals studied.

Electrolyte changes during hypothermia have been studied by many investigators. Fleming (1954) and McMillan *et al.* (1955)

found small changes in serum potassium, both increases and decreases; whereas Bigelow, Lindsay and Greenwood (1950), Elliott and Crimson (1947), Swan *et al.* (1953) and Osborn (1953) found relatively large changes, both increases and decreases. MacKay (1947) working with cats, found a correlation between potassium and carbon dioxide levels, while McMillan *et al.* (1955) have not been able to demonstrate such a correlation. It should be emphasized, however, that all shivering was prevented in the animals used by McMillan and since shivering promotes glycogenolysis and a concomitant potassium release, it is very probable that the elimination of shivering was responsible for those cases where negligible changes in potassium levels were observed. Elliott and Crimson (1947) have shown that the administration of an amount of potassium which at normal body temperatures is without effect may cause lethal cardiac effects at 25°C. Garb (1951) has shown that with the cat papillary muscle preparation at normal temperatures potassium changes in the perfusion bath are principally effective in bringing about changes in the irritability of the heart. It has essentially no effect on the contractile force of the muscle mass.

Conn and Robertson (1955) using radio-potassium ( $K^{42}$ ) have attempted to study the kinetics of potassium transfer in the myocardium of the intact, anesthetized dog. Their results indicate that there is a gradient between the plasma potassium of the coronary circulation and the intracellular myocardial potassium. The interstitial fluid potassium is less than the intracellular fluid potassium of the left ventricle. The energy involved in maintaining this intracellular-interstitial concentration gradient can be approximated, although the efficiency of the system is unknown. The calories expended may also simultaneously accomplish additional work such as transporting other ion species in the opposite direction. No consideration was given to electrical gradients or exchange diffusion, and these processes may play a major role in the exchange. This study is particularly interesting because of the possible importance of change in such a system occurring during marked reduction in tempera-

ture as in hypothermia. It is possible that observed shifts in the plasma potassium seen during hypothermia may be accounted for by such a system. A recent study of the effects of acute respiratory acidosis on the internal equilibrium of potassium by Schriber, Fremont-Smith and Burnell (1955) has shown that the internal equilibrium of potassium is in part a function of pH. They have demonstrated that with acidosis there is an increase in the extracellular-intracellular concentration ratio of potassium, and with alkalosis there is a corresponding decrease in this ratio. The altered ratio persists as long as the pH remains altered.

All investigators have observed a rise in serum calcium. The degree of increase reported has not been consistent, although all have found a definite increase. It is known that an excess of calcium leads to prolongation of systole, whereas potassium has the effect of prolonging diastole. It may be argued, as by McMillan *et al.* (1955), that the observed rise in serum calcium, which would tend to increase the power of systolic contraction of the myocardium and diminish relaxation, would produce precisely the effect observed by Hegnauer, Flynn and D'Amato (1951) during their hypothermic experiments. They found that under hypothermic conditions with a slow heart rate the period of systole was lengthened in relation to diastole, thus giving the heart little time for full relaxation in diastole and, hence, for coronary circulation. This is quite different from the slow heart rate of the hibernating animal, as reported by Lyman (1951), which has a normal systole and a long diastole. Berne (1954) has observed the same general ventricular time relations as those given by Hegnauer.

Since the calcium/potassium ratio rises in hypothermia and it has been shown that the heart is extremely sensitive to these cations at low body temperatures, it may be that changes considered to be inconsequential at normal body temperatures become lethal at a low body temperature. This condition combined with an insufficient coronary flow and hence possible anoxemia of the myocardium, may be enough to precipitate ventricular

fibrillation or cardiac arrest. Swan and Zeavin (1954) and Zeavin, Virtue and Swan (1954) have shown that intra-aortic injections of potassium close to the coronary outflow and aided by cardiac massage reverse ventricular fibrillation in many cases. It may be that the injection of potassium effects this by restoring the calcium/potassium ratio. Grumbach, Howard and Merrill (1954) working with the perfused rabbit heart at normal temperature found that decreases in potassium in the face of no change in calcium, or an increase in calcium alone, precipitated spontaneous ventricular fibrillation.

In a recent study Covino and Hegnauer (1955) have studied the coronary A-V electrolyte differences in normal and hypothermic dogs. Sodium, potassium, calcium, magnesium, chloride and hydrogen ion concentration were determined. In dogs cooled to 24° C. which did not show ventricular fibrillation, there were no electrolyte changes. Ten dogs, made hypothermic, showed characteristic changes in calcium, potassium and hydrogen ion at 24° C. All these animals developed ventricular fibrillation and died, although no indication is given as to whether attempts were made to convert the arrhythmia to a normal sinus rhythm. It is suggested from this study that ventricular fibrillation at low temperature is related to an increase in calcium and a loss of potassium and hydrogen by the hypothermic, hypercapnic myocardium.

Because of its relation to electrolyte balance, renal function has been indirectly linked to the cardiovascular and electrolytic changes observed by many investigators during hypothermia. It has been shown by Nedzell (1952) that during hypothermia rabbit kidney function is seriously impaired. Bergstrand and Sterky (1954) in their studies found that the rabbit renal function paralleled the decrease in temperature with a decrease in oxygen consumption of the kidneys at low temperatures, but the oxygen content and A-V saturation of the blood was not altered. Anderson and Nielson (1955), using the rabbit, found a decrease in urine output, filtration, concentrating capacity and per cent reabsorption of urea. They attribute the decrease in

filtration and urine output to the decrease in blood flow resulting from the decrease in blood pressure and also to vasoconstriction within the kidney. The impairment of concentrating capacity and urea reabsorption is believed to be due to a decrease in the permeability of the nephrons directly affected by cold.

Page (1955) is the first investigator to publish detailed studies of the effects of hypothermia on renal function in the dog. In his experiments shivering occurred in all dogs. When placed in the cold, renal plasma flow and renal blood flow increased to values slightly above 100 per cent of control. The maximum was reached at temperatures between 32° and 28°C. During progressive hypothermia, filtration rate and renal plasma flow decrease as approximately linear functions of rectal temperature. Filtration fraction is variably increased during hypothermia. The extraction ratio of P-aminohippuric acid is unaffected by changes in temperature to 27°C. The maximal rate of tubular excretion of P-aminohippuric acid is increased during shivering and then decreased as temperature falls. Dogs subjected to repeated experiments exhibited no evidence of residual change in renal function resulting from hypothermia. Parallel studies have been reported by Morris *et al.* (1954) who studied changes in renal hemodynamics during hypothermia following clamping of the thoracic aorta.

Normally the kidneys exercise a careful control over potassium in the blood. Under circumstances of marked shivering a hypokalemia can result. In all studies where hypothermia was performed with unanesthetized animals, including dogs, ventricular fibrillation rarely was the cause of death. In the experiments done by Ariel, Bishop and Warren (1943), Crimson (1944), Dill and Forbes (1941), and Hamilton, Dresbach and Hamilton (1937), while not always specifically mentioned, it can be assumed that shivering accompanied the heat loss and, therefore, it can be assumed that an increase in serum potassium was present. This might possibly have been a fortuitous prophylaxis. In the use of hypothermia to facilitate cardiac surgery, most workers have controlled completely the shiver-

ing reflex. In this group, ventricular fibrillation is quite common. Maguire and Merendino (1955) have suggested that if the temperature is reduced sufficiently, normal calcium levels in the presence of hypokalemia resulting from absence of shivering is possibly the chemical stimulus precipitating ventricular fibrillation in the hypothermic dog. They also suggest that during cooling the conducting system may be interrupted at a higher temperature level than the contractile mechanism of the myocardium. Since potassium is intimately concerned with the conduction processes of the myocardium, these changes are even more significant.

The excessive release and subsequent flooding of the heart by endogenous epinephrine has been postulated by Cookson, Neptune and Bailey (1952) and Berne (1954) to be another cause of the increased irritability of the heart. This concept has been studied by Hegnauer and he has presented evidence to indicate that an excessive release of epinephrine probably does not occur. Grumbach, Howard and Merrill (1952), however, in their studies with the perfused rabbit heart suggest that calcium initiates spontaneous ventricular fibrillation by stimulating adrenergic receptors in the myocardial tissue to release epinephrine. Changes in circulating epinephrine have been reported by some investigators. Wada, Seo and Abe (1935) using a biological quantitative assay method reported a marked increase in blood epinephrine at temperatures below 30°C. Itikawa (1935) carried out similar experiments with dogs in which medullary tissues was removed and found no increase in blood epinephrine when compared to control animals. Satow (1936) reported on a series of epinephrine replacement studies following removal of the suprarenal medulla and was able to prevent the exaggerated temperature fall, blood pressure fall and bradycardia of the control animals. In all these experiments, however, the dogs were placed in the ice bath in a conscious condition. Under these circumstances cold narcosis occurred at temperatures below 30°C. Prior to reaching a state of unconsciousness, the animals obviously shivered markedly. This in itself would account for a

large portion of the blood epinephrine increase that was observed.

More recent studies have been made on this problem with varying degrees of success. Fisher, Fisher and Fedor (1955) have reported that hypothermia produced no change in the norepinephrine and total chromaffin reaction of the adrenal medulla of rats. On the other hand, Egdaahl, Nelson and Hume (1955) have reported decreased adrenal cortical function during hypothermia. Recent studies by Brown, Cotten and Walton using a fluorometric technique of blood analysis have shown that there is a moderate increase in adrenal medullary secretion of epinephrine and norepinephrine during hypothermia in the dog. Why the production of the so-called stress hormones of the cortex should be reduced while those of the medulla should be increased or remain unchanged is not known.

There are constant and distinct changes in the electrocardiogram in cooled dogs. Electrocardiograms which have been taken in surgical patients who have been subjected to hypothermia have been similar to those seen in the dog, rat and rabbit. Hamilton, Dresbach and Hamilton (1937), Crimson (1944), Hook and Stormont (1941), Prec *et al.* (1949), Bigelow, Lindsay and Greenwood (1950), Siems *et al.* (1955), Nardone, Wilber and Musacchia (1955), and Hicks, McCord and Blount (1956) have observed the following changes during cooling. The rate slows and sinus rhythms with rates of 15 to 30 per minute are usual findings at 20°C. The PR interval is roughly twice the PR interval at 37°C. The duration of the QRS is often difficult to define below 25°C. Usually it is about doubled at 20°C. and the QT interval is three times to four times as long as at 37°C. The shape of the T wave changes with cooling and is also often difficult to define. It is nearly always a negative wave at 20°C., but it may become inverted at any stage of the cooling. Bigelow *et al.* (1950) consider that the earlier an inversion appears, the poorer is the prognosis for an uneventful recovery.

The Pr and Qt distances increase much more rapidly with a falling body temperature once 30°C. is passed. As cooling continues, the rhy-

thm changes at some point, usually below 20°C., but variation can appear at higher temperatures. The type of change is unpredictable. The most common sequence of events is the appearance of ventricular ectopic beats followed by ventricular fibrillation and death. There is usually little warning. With virgous ventricular fibrillation it is impossible to identify P waves. Bigelow, Lindsay and Greenwood (1950) have shown that on observation of the heart there is a continuance of regular auricular beats for a period of up to twenty minutes after the onset of fibrillation. These become irregular, and eventually both auricle and ventricle come to cardiac arrest in diastole. Occasionally, instead of fibrillation, a pacemaker in or below the AV node will take over, resulting in the appearance in the electrocardiogram of nodal rhythm, or of a slow idioventricular rhythm.

If the animal is rewarmed, the changes in the electrocardiogram revert toward normal. The heart rate, the PR interval, the duration of the QRS complex and the QT interval usually return to normal, but the T wave and the ST segments may be of different form than those before cooling.

Attempts have been made to use the electrocardiogram pattern and changes in the pattern to forecast pending arrhythmias, and even the onset of ventricular fibrillation. Some investigators, notably Osborn (1953) and more recently Covino and Charleson (1955), Covino and Williams (1955) and Covino and Hegnauer (1955) have presented data indicating that a current of injury demarkation in the electrocardiogram is indicative of approaching danger. The results of these investigators are very interesting and important, although other investigators have not been able to detect any significant changes in the electrocardiogram pattern indicating pending fibrillation. Covino and Hegnauer (1955) have related a lower pH of acidosis secondary to respiratory changes which alters the excitability curve of the ventricle. A maintenance of a near normal pH during cooling prevented ventricular fibrillation and changes in the excitability curves.

Hegnauer and Penrod (1950) in their

studies presented information which led them to believe that increases in blood viscosity might contribute to the onset of fibrillation. In these studies they noted an increase in both viscosity and hematocrit readings, the viscosity increase being greater in those cases where the hematocrit readings increased. Since that time several other investigators have also observed increases in hematocrit readings, but little attention has been paid to the possible importance of increased viscosity. Page (1955) has indicated that increased viscosity may be partly responsible for the observed decrease in renal blood flow during deep hypothermia. McMillan *et al.* (1955) have recently suggested that further studies of the significance of viscosity should be conducted, particularly with reference to changes in cardiovascular function during hypothermia.

The effect of hypothermia on myocardial function has been studied rather extensively by Berne (1953) and Edwards *et al.* (1954) and more recently by Reissmann and Kapoor (1956). Edwards has confirmed the work of Penrod that coronary A-V oxygen difference is essentially unchanged during hypothermia. However, due to the decline in coronary blood flow, myocardial oxygen consumption significantly decreases during hypothermia. Since he found that there was a disproportionate fall in left ventricular work as determined by stroke volume, he concluded that the mechanical efficiency of the left ventricular muscle was considerably reduced at the lowered temperatures.

Bing *et al.* (1949) have demonstrated a fall in myocardial efficiency in the human heart *in vivo*. In low output failure, though, the myocardial oxygen usage per unit of ventricular weight is normal, and the decrease in efficiency is primarily the result of a diminution in cardiac work. In hypothermia, Edwards *et al.* (1954) feel that there is a decline in both cardiac work and myocardial aerobic energy uptake. The fall in mechanical efficiency of the heart in both low output failure and hypothermia suggest a partial loss of the ability of the heart to convert aerobic energy into useful work.

Edwards has also demonstrated that al-

though the decline in left ventricular oxygen consumption during hypothermia is considerable, the fall in oxygen usage of the whole animal is proportionally even greater. As a result, the ratio of oxygen consumption of the heart to the total body oxygen consumption increases during hypothermia. This would indicate that the heart maintains a relatively high oxygen consumption as compared to the rest of the body.

A recent article by Wiggers (1954), however, has cast doubt as to the validity not only of Edwards' work, but also of all studies of left ventricular metabolism. The basis of all studies involving metabolism of the heart and especially the left ventricular muscle has been based on the assumption by Gregg and Shipley (1947) that the coronary sinus receives venous blood only from the left ventricle. Geller, Brandfonbrener and Wiggers (1953) and Johnson and Wiggers (1937) have shown rather conclusively that the coronary sinus not only drains the left ventricle, but in fact receives a sizable (although variable) quantity of blood from the right ventricle by way of the thebesian veins. The significance of this fact is obvious, for it invalidates all studies of left ventricular metabolism based on coronary sinus flow. It should also be evident that the myocardial efficiency as determined by Edwards may not decrease as his studies point out, but may stay the same or even increase in the face of reduced temperature and reduced stroke volume.

Sabiston, Theilen and Gregg (1955) have shown a decrease in cardiac output, oxygen consumption, mean arterial pressure, heart rate and venous pressure. At the same time there was a reduction in the circumflex coronary flow although the percentage reduction in cardiac output was greater. On this basis, coronary flow fraction is actually increased at temperatures of 25° to 26° C. They observed that at these temperatures the coronary vessels dilate whereas the remaining vessels of the body constrict. There is a general increase in peripheral resistance while there is a reduction or no change in coronary resistance. In any event, neither change is believed to influence the other. Shumway, Gliedman and Lewis

(1955) have carried out coronary perfusion experiments during long periods of cardiac occlusion under hypothermia with rather satisfactory results.

The work of Berne (1953) has demonstrated that the decline in arterial pressure in severe hypothermia is not a manifestation of myocardial failure. He found that good pressure contours from the aorta, left ventricle and left auricle were maintained even with extreme degrees of cooling, and that the contours did not show any of the characteristics of myocardial failure during hypothermia. The striking changes induced by hypothermia were the marked prolongation of systole and of isometric relaxation. The prolongation of the isometric relaxation phase or diastole in itself does not interfere with ventricular filling, since the heart rate is extremely slow during hypothermia. If, however, the rate is moderately increased by artificial stimulation, Berne found that the extended period of isometric relaxation assumed major importance, as total diastole is reduced to a greater extent than is isometric relaxation. In this manner ventricular filling-time is shortened and atrial contraction does not contribute to ventricular filling, since atrial systole occurs while the A-V valves are still closed.

Trautwein and Dudel (1954) have studied the action potential and mechanograms of the cat papillary muscle as a function of temperature. They found that as the temperature decreased from 35° to 25° C. the papillary muscle showed an increase in the amplitude of the mechanogram. This increase was believed to be an inherent part of the muscle dynamics and was always present, even when the preparation was driven over a wide range of frequencies. Garb and Schriabine (1955) have recently shown that with the isolated cat papillary muscle preparation there was greater utilization of glucose at 27° C. than at 37° C. This greater glucose utilization was recognized as an increase in the contractile force of the substrate-depleted papillary muscle at 27° C.

Wynn (1954) has shown that in the intact dog and in man, exogenous glucose in the form of 5 per cent intravenous glucose is metabolized very slowly. Their studies indicate the in-

fusion of glucose during hypothermia should be reduced from 5 per cent to at least 2.5 per cent, and that these changes in glucose metabolism with hyperglycemia alter the plasma-Na and plasma-total protein levels so that both values will fall.

Investigations of the influence of hypothermia on the heart contractile force of experimental animals have been carried out by Brown and Cotten (1954 and 1956). One of the most significant aspects of their study was the observation of a transient increase in the force of myocardial contraction as the animal was cooled. The increase reached a maximum value of approximately 25 percent above normothermic contractile force values at temperatures of 28° to 30° C., and thereafter gradually decreased in such a manner that control values were obtained at temperatures of 22° to 24° C. Similar results were observed in both intact animals and in isolated preparations. The nature of this increase has been studied rather extensively and appears to be due to a combination of factors.

It appears that the primary cause is a temperature coefficient of the contractile process of cardiac muscle such that maximum efficiency or maximum developed tension can be achieved at temperatures below the normal environmental temperatures of the organism. This property also appears to be characteristic of other muscle types besides cardiac muscle. Changes in initial diastolic length do not occur during the primary stage of hypothermia hence the increase in contractile force is not achieved by means of Starling's Law of the heart. There is a significant increase in the viscosity of blood and plasma, but these changes occur at temperatures much lower than the changes in contractile force. It was found, however, that during the initial stages of cooling, the plasma level of circulating catechol amines was increased slightly. This increase was of such a magnitude as to partially account for the increase in contractile force on the intact animal. There is reason to believe that the catechol amines measured were specifically epinephrine and norepinephrine and that both were present in increased amounts due to an increase in the output by the adrenal medulla.

The increased activity of the adrenal medulla during hypothermia is not altered following total chemical sympathectomy.

It would appear, therefore, that during hypothermia the total developed tension of cardiac muscle can and does increase. This increase is due in part to a temperature coefficient of the contractile process of the muscle itself and also to changes in circulating catechol amines, probably epinephrine and norepinephrine. It does not appear to be due to Starling's Law of the heart or to increases in blood viscosity.

Selman and Brofman (1955) in studying the effect of coronary occlusion in hypothermic dogs, reported that the mortality rate in the hypothermic animal was 100 per cent as compared to 50 per cent in control normother-

mic animals. Stephens, DeRiemer and Wexler (1955) have studied the use of an artificial pacemaker during hypothermia and have found that if the rate is reduced proportionately, dogs can be maintained down to temperatures of 12 C. Berne (1954) has shown that during artificial acceleration of the cooled heart, coronary blood flow may be reduced as a result of the proportionately long period of extravascular compression, and will indirectly precipitate ventricular fibrillation. Wiggers (1954) has presented evidence which indicates that the major contributing factor to coronary flow is ventricular contraction or compression. This will obviously need further investigation since the basic concept is in conflict with the presently accepted theories on the role of ventricular compression in coronary flow.

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A	Anesthesiology
ACN	Acta chir. neerl.
AFTR	Air Force Technical Report
AHJ	Am. Heart J.
AIM	Ann. Int. Med.
AIPT	Arch. internat. pharmacodyn.
AJP	Am. J. Physiol.
AJCP	Am. J. Clin. Path.
AMAAIM	A.M.A. Arch. Int. Med.
AMAAS	A.M.A. Arch. Surg.
AMS	Acta med. scandinav.
APS	Acta physiol. scandinav.
ACRS	Ann. Roy. Coll. Surgeons England
AS	Ann. Surg.
BMJ	Brit. M. J.
BJA	Brit. J. Anaesth.
C	Circulation
CAR	Cancer Res.
CR	Circulation Res.
CRAA	Anesth. & Analg.
E	Endocrinology
ECN	Electroencephalog. & Clin. Neurophy.
FP	Fed. Proc.
GHR	Guy's Hosp. Rep.

JAM	J. Aviation Med.
JAMA	J.A.M.A.
JAP	J. Appl. Physiol.
JCI	J. Clin. Invest.
JICS	J. Internat. Coll. Surgeons
JP	J. Physiol.
JPET	J. Pharmacol. & Exper. Therap.
JTS	J. Thoracic Surg.
L	Lancet
LM	Laval med.
NEJM	New England J. Med.
NYJM	New York J. Med.
PA	Pfluger's Arch. ges. Physiol.
PM	Presso med.
POM	Postgrad. M. J.
PR	Physiol. Rev.
PRS	Proc. Roy. Soc., London, s.B.
PRSM	Proc. Roy. Soc. Med.
PSEBM	Proc. Soc. Exper. Biol. & Med.
S	Science
SAMJ	South African M. J.
SF	Surg. Forums
SU	Surgery
SGO	Surg., Gynec., & Obst.
TJEM	Tohoku J. Exper. Med.
YJBM	Yale J. Biol. & Med.

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This paper presents two pediatric patients who had uncontrolled diabetes on admission to Duke Hospital and who subsequently developed large areas of palatal slough secondary to infection with the primitive class of fungi of the family of mucoraceae. These fungi are constant contaminants of the soil, fruits and the normal body surface but in the presence of uncontrolled diabetes mellitus these ordinarily harmless fungi become extremely pathogenic.

The first case is of a 14 year old colored female who was admitted in severe diabetic acidosis. Examination revealed a fungating mass on the hard palate which by culture and biopsy revealed the presence of *Rhizopus oryzae*. Treatment with antibiotics and desensitization of the patient to the fungi produced eventual healing with a large defect in the palate at the site of the original lesion.

The second patient was a 16 month old white male infant who was admitted for repair of a palatal cleft which, by history, resulted from a fungus infection. This infant, likewise, had diabetes mellitus.

*Complement-Fixation Titres in Tertiary Lymphogranuloma Venereum — A Study of Results After Treatment with Broad-Spectrum Antibiotics by Julius Goldberg and Leon Banov, Jr. (Charleston) Brit. J. Ven. Dis. 32:37-39, 1956.*

Fourteen patients with tertiary lymphogranuloma venereum (rectal involvement with subsequent formation of rectal strictures) were treated with one of the following antibiotics: chlortetracycline, chloramphenicol, oxytetracycline, and erythromycin. The patients were followed for periods of 12 to 27 months and the complement-fixation titers of their sera were determined. Of the 14 patients, 12 still had circulating antibodies to a significant titer, some as long as 27 months after apparently satisfactory clinical antibiotic treatment. Only 2 patients showed no complement-fixation antibodies after therapy.

These laboratory results indicate that the amount of antibiotic necessary to improve the clinical manifestations of lymphogranuloma venereum is usually not sufficient to stop antibody formation against the virus particles even after 2 years. This may suggest that active virus particles are still present after successful clinical therapy and may partially explain the large number of supposed re-infections observed in this disease.



# MEDICAL COLLEGE CLINICS

## THE MEDICAL COLLEGE OF SOUTH CAROLINA

### ELECTROCARDIOGRAM OF THE MONTH

#### MITRAL STENOSIS

DALE GROOM, M. D.  
Charleston, S. C.

*Case Record*—A 31 year old mother of two was referred to the Beaufort Heart Clinic in March 1955 because of progressive dyspnea. She acknowledged having been hospitalized on three occasions for rheumatic fever during adolescence, but had noted no cardiac symptoms until about the age of twenty-five. Since then her exercise tolerance had decreased to the degree that she was unable to walk half a block or to carry on ordinary household duties without considerable dyspnea and fatigability. Of late some ankle edema had been noted.

Auscultatory examination revealed a long blowing diastolic murmur and a short pre-systolic rumble both localized to the mitral area. No systolic or other murmurs could be heard. The pulmonic second sound was accentuated and there were moist rales audible at the lung bases posteriorly.

By cardiac fluoroscopy there was seen to be selective enlargement of the left atrium and the right ventricle, with prominent pulsation in the pulmonary artery. On chest roentgenograms the overall heart size was not remarkable, and the small septal "lines B of Kerley", indicative of pulmonary venous hypertension,<sup>1</sup> were clearly demonstrable in the costophrenic angles.

When five months later the patient consented to cardiac surgery because of increasing disability, a mitral commissurotomy was performed through an incision in the left auricular appendage. The mitral valve was found to be fibrotic, almost completely closed, with the valve orifice estimated by palpation to be no more than about 4 mm. in diameter. Some regurgitant flow could be felt in systole. Pressure recordings made from the left atrium during surgery showed a fall from about 20 to 10 mm. of mercury following incision of the medial and lateral valve commissures.

The patient made a satisfactory recovery following surgery. When examined one year later she had no evidence of cardiac disability and was able to carry on a normal amount of activity without symptoms.

The electrocardiogram below was recorded pre-operatively.

From the Department of Medicine.

*Electrocardiogram*—The most striking feature of this tracing is the right axis deviation. QRS complexes are totally negative in lead I and positive in lead III, and of decreasing amplitude as the precordial electrode is advanced across the left chest wall. So far as the QRS complexes are concerned this electrocardiogram is not unlike those recorded from cases of dextrocardia. The P waves are prominent throughout, being unusually broad and notched in some leads. T waves are abnormally inverted in leads II, III and aVf, and in leads from the right side of the precordium.

*Discussion*—The advent of mitral valve surgery in recent years has brought with it a need for more accurate diagnosis of mitral stenosis. Of particular interest in selection of patients for commissurotomy is the evaluation of the relative degree of stenosis and insufficiency of the mitral valve. Although the electrocardiogram is in no way specific for mitral stenosis or any other valve lesion it often provides indirect evidence of value in establishing this diagnosis.

Obstruction to blood flow at the mitral valve produces an increased back pressure in the left atrium as measured in this case, with resultant enlargement of the left atrium. The broad, flat, notched P waves in one or more of the standard leads are frequently associated with this abnormality, in contradistinction to the tall pointed P waves which develop with selective enlargement of the right atrium as in pulmonary stenosis.

Reflected back through the pulmonary circulation, the increased pressure produced by stenosis at the mitral valve imposes an undue load on the right ventricle with consequent hypertrophy of the right side of the heart. Because of this, and because the work of the left ventricle may be actually decreased in pure mitral stenosis, the mean electrical axis of the electrocardiogram become shifted toward the right. Evidence of right ventricular hypertrophy may appear or, as in this case, only right ventricular preponderance. Mitral regurgitation, on the other hand, gives rise to



## INTERSTITIAL PREGNANCY A CASE REPORT

LAWRENCE L. HESTER, JR., M. D. AND  
JULIAN A. SALLEY, M. D.

**T**his 21 year old gravida 3, para 2, abortion 1, presented herself to Roper Hospital's emergency room on June 14, 1956 with the chief complaint of lower abdominal pain. Five hours prior to admission the patient had sudden onset of sharp mid-lower abdominal pain, rapidly spreading over the entire abdomen. Since the onset of the pain, she had become progressively weak with dizziness and fainting. She also had pain on deep inspiration at the costal margin as well as some shoulder pain. Her last menstrual period had been in February, 1956. She had developed symptoms of pregnancy during the period of amenorrhea. Menstrual periods had been regular every 30 days until the present episode of amenorrhea. Her last pregnancy terminated in an uncomplicated spontaneous delivery one year ago.

Physical examination on admission revealed a pale, colored female in mild distress. She was slightly lethargic and complaining of weakness. Her blood pressure was 70/50 and pulse 80 per minute. Skin was warm, dry and pale. The lungs were clear to percussion and auscultation. The heart was not enlarged and a normal sinus rhythm was present. The abdomen was slightly distended, with tenderness in both lower quadrants and to a lesser extent in the upper quadrants. There was little rebound tenderness and no muscle spasm or localized tenderness. Pelvic examination revealed normal external genitalia. The cervix was slightly blue. The uterus was indefinite and difficult to outline, but it was thought to be twice normal size and tender. No adnexal masses were palpable. The culdesac was full and tender with fluctuation suggesting free peritoneal fluid. A needle aspiration of the culdesac was performed and 10 ml. of blood was obtained which did not clot. Laboratory examination on admission revealed a hemo-

globin of 9.5 grams. The white blood count was 15,000 with 85% polys and 15% lymphs, and the volume of packed cells 26 volumes %. The patient was immediately transfused with 1000 ml. of whole blood and a laparotomy was performed with a preoperative diagnosis of ruptured tubal pregnancy. Upon opening the peritoneal cavity, approximately 1500 ml. of old blood was found free in the abdomen. The uterus was twice normal size with a 14 weeks pregnancy with intact membranes attached to the right cornu. At this point the uterus had ruptured, leaving fetus and membranes free in the peritoneal cavity except for a small placental attachment to the myometrium. The left tube was occluded by chronic inflammatory disease. The right tube was normal in its distal portion. Because the non-patency of the uninvolved tube prohibited future child bearing, a total hysterectomy was performed. It was felt also that simple excision of the involved myometrium would produce rather massive hemorrhage due to the friable tissue adjacent to the placental implantation.

The pathological report was that of uterus of pregnancy (interstitial) ruptured, and cervicitis, chronic. The gross description was as follows: "Received an intact, previously in-



Figure 1.—Fetus intact Amniotic sac, and uterus.

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cised, corpus uteri with cervix. The myometrium is not unusual. The endometrial cavity contains a placenta. Extending from the cornual region is remainder of the placenta with large blood clot, amniotic sac and a 5 cm. crown to rump fetus, within the intact amniotic sac. (See Fig. I and II). The cornual region



Figure 2.—Uterus opened showing interstitial rupture.

represents hemorrhage extending into the myometrium and apparently represents rupture at this point. The microscopic description confirms a diagnosis of an interstitial pregnancy with rupture.”

The patient withstood the operative procedure well and was returned to the ward in good condition. Her postoperative course was essentially uncomplicated and she was discharged on the seventh postoperative day improved.

Discussion: Interstitial pregnancy is a rare form in which the pregnancy occurs in the portion of the Fallopian tube that traverses the uterine wall. The incidence of interstitial pregnancy in series of ectopic pregnancies has been various reported from 1.2 to 1.7 percent.

By astute observation and careful examination, the diagnosis of interstitial pregnancy may be made before rupture has occurred. (1) This form of ectopic pregnancy is the most dangerous of all types from the point of view of hemorrhage. This is due to the proximity of the large vessels of the uterus and the fact that its location in the musculature permits a longer period of viability and growth before rupture and resulting hemorrhage occur. The rupture may occur into the uterine cavity with passage of fetus and placenta per vagina; however, the rupture is more likely to occur into the abdominal cavity.

This case represents the usual case in that rupture occurred later than with the usual tubal pregnancy. Blood loss was rather massive and she was in shock at the time of her admission to the hospital. She received 1000 ml. of whole blood prior to operation and 1000 ml. during the operation. A total abdominal hysterectomy was done because the left Fallopian tube was occluded by pelvic inflammatory disease and it was thought at that time that blood loss would be less by removing the uterus than to resect the ruptured portion.

Summary

A case of interstitial pregnancy with rupture into the abdominal cavity is presented. A total abdominal hysterectomy was performed.

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PATHOLOGICAL CONFERENCE

H. R. PRATT-THOMAS



History: 13 year old colored girl admitted to the pediatric ward on July 20, 1955. Grandmother stated that child had onset of headache, abdominal discomfort and fever one week prior to admission. Three days before admission she began vomiting and thenceforth she became progressively weaker. She was constipated until July 19 when she had a loose stool, and subsequent stools have also been loose but otherwise normal in all respects. She was taken to a physician in Mullins, S. C. on July 19th and he thought she had some weakness of deglutition. He performed lumbar puncture which yielded clear fluid containing 40 cells. Therefore she was referred here for further study.

Past history did not provide any additional significant information.

On admission she had a rectal temperature of 107 F., pulse 160, respirations 44 and a systolic blood pressure of 70. She was well developed and well nourished, but acutely ill and quite lethargic. Her skin was hot, but of good turgor and without rash. Her neck was stiff, but neither Brudzinski's nor Kernig's sign was present. She had hyperactive tendon reflexes and an absence of abdominal reflexes. No cardiac abnormalities were detected.

In the hospital she was at first able to take carbonated fluids well, swallowing without difficulty. A spinal tap yielded clear fluid. Intravenous fluids containing sulfasoxazole (Gantrisin), glucose and balanced electrolytes started. Oxytetracycline (Terramycin) 100 mg. intramuscularly every 6 hours was ordered. Vigorous ice water and alcohol sponges kept temperature in the vicinity of 104° during the first night.

The next day she was weak and toxic, but conscious, oriented and cooperative. Complete neurological examination failed to reveal any specific spinal nerve paralysis or weakness. Neck stiffness was less, if changed at all. At about noon she began to have respiratory difficulty. At 1:00 P. M. blood pressure was 60/0 and the skin was cold and clammy. While the staff was locating intravenous equipment and oxygen, her blood pressure became unobtainable. Venesection was performed and caffeine sodium benzoate was given by intra-

venous drip. Respiration and color improved. Blood pressure rose to 60/55. Oxygen by nasal catheter was continued. Coffee-ground material was vomited. Respiration continued to be fast and shallow. At 4:15 P. M. the skin became very cyanotic and cold. Blood pressure was again unobtainable. Breathing became labored, and ceased altogether at about 4:30 P. M. The patient was placed in an iron lung. There was fairly good heart beat until the pulse was unobtainable at 10:45 P. M. She was pronounced dead at 10:50 P. M.

Laboratory Data: (July 20) Hgb 12.5, RBC 4.6, WBC 9,200 (L 12, M 2, PMN 86, NF 6) VCP 44%. Urinalysis: Cloudy yellow, acid, Alb + + +, Sug & Acet 0, WBC 2-5, RBC 3-4, epith. + +, casts + + + + coarse granular. Stool: Negative. Spinal Fluid: Cell count 30/eu. mm., 28% PMN sugar 52 mg. per 100 ml. Chlorides 630 mg. Protein 17 mg. Smear and culture of spinal fluid negative.

Bacterial Agglutinations: *Sal. typhosa* "H", *Sal. typhosa* "O" and *Sal. paratyphi* (A) were negative. *Sal. Shottmulleri* (B) was 2 plus in a dilution of 1/20. *Sal. cholerae* *snis* (C) was 1 plus in a dilution of 1/20. *Proteus* OX 19 was four plus in a dilution up to 1/40 and one plus in a dilution up to 1/320. *Brucella abortus* was negative.

Blood drawn July 20, and July 21, was sent to Federal Laboratory in Montgomery, Alabama for complement fixation tests. These tests were reported negative for any known specific antigen.

*Dr. Jack Paul (conducting)*: Mr. Davenport, please initiate the discussion of this interesting case.

*Senior Student Davenport*: We have for consideration a girl whose illness in the beginning was characterized by headache, abdominal discomfort, weakness, vomiting and looseness of stools. Some questionable weakness in swallowing followed and a pleocytosis which was confirmed in our laboratory. Bulbar poliomyelitis would be my first consideration. There is no elevation of the serum proteins such as is often the case in poliomyelitis. There are two clinical features which are also against it. The completely negative neuro-

logical examination stands out, particularly if cranial nerve palsies are also excluded. Furthermore the circulatory manifestations of poliomyelitis are frequently of hypertensive nature and if hypertension does occur it is, at least temporarily, alleviated by supportive fluids which was not true here.

My next consideration would be one of the rickettsial diseases, typhus, either epidemic or endemic type, and Rocky Mountain spotted fever. None of the agglutination series is of significance except possibly the *proteus* X-19 which might be elevated in any of the three. The significance of the *proteus* X-19 agglutination is also subject to question because of the report from the Federal Laboratory that the blood was negative for any known antigen. Perhaps the blood spoiled en route. It is also possible that in a fulminating infection there would be no antibody response. Least likely of all is the possibility that the patient was also suffering from agammaglobulinemia. Aseptic serous meningitis is suggested by the prodromal symptoms, except that usually they are more respiratory in nature. The spinal fluid is not at all helpful in supporting this diagnosis and there appears to have been too great a degree of systemic intoxication and shock for this disease.

I would expect the various typhus fevers and Rocky Mountain spotted fever to all have a rash, but it might have been overlooked in this colored child. Leptospirosis might be considered, but it does not appear likely that Weil's disease of this severity would occur without more evidence of either hepatic or renal damage.

One of the viral encephalitides ought to be considered, particularly as the hyperthermia suggests a lesion of the midbrain, but the mental clarity is against this.

There is no indication of one of the purulent meningitides and torula or cryptococcus is certainly more subacute or actually chronic in nature.

I believe that either endemic typhus or bulbar poliomyelitis would be my first choices.

*Dr. Paul:* Mr. Harper, do you have any additional ideas?

*Mr. Harper:* I felt that the patient had either

one of the rickettsial diseases or a protens infection. The latter might involve either the urinary or digestive system. There is no definite proof that she had actual diarrhea as the history is vague and she does not seem to have had tenesmus or any loss of skin turgor.

*Dr. Paul:* Mr. Harper, what group of diseases produce the most severe toxemia and high fever in children of this area during the summer?

*Mr. Harper:* I would say that intestinal infections with salmonella and the shigella group are chiefly responsible. I don't believe that we have sufficient evidence for any of these in this case.

*Dr. Kelly McKee:* It is difficult to make an ante-mortem diagnosis. The peripheral vascular collapse points to a meningococcal infection, but the course is somewhat prolonged and there is no skin rash. I also considered heat stroke. I am not sure of the significance of positive titers above 1:40 on one occasion. I don't think it would be very significant. It is too early for the complement-fixation tests to be helpful.

*Dr. Ben Boltjes:* Sera are quite stable and I would not think that anything could happen that would invalidate the test. Complement-fixation titers usually do not become positive until the tenth or fourteenth day whereas agglutination tests become positive earlier, often by the sixth or seventh day. There is a strong possibility that this could be endemic typhus as the case is in that interval between which agglutination and complement-fixation tests become positive. One positive reading in a 1:340 dilution with *proteus* OX-19 is not within itself significant. You should demonstrate a rise for it to be of diagnostic importance. Constipation is the rule in endemic typhus. The persistent low blood pressure is very fitting. Ten per cent of patients do not have a rash and it might be evanescent and particularly difficult to see in a colored individual. Perhaps the weakness of deglutition was due to the discomfort of a related parotitis which these patients often have.

*Dr. Pratt-Thomas:* FINAL PATHOLOGICAL DIAGNOSIS:

VASCULITIS, ACUTE, WITH MURAL

**THROMBOSIS (RICKETTSIAL DISEASE, MOST PROBABLY TYPHUS).**

The pathologic findings in this case are very minimal, as might be expected in what I believe to be typhus fever. Grossly, there was nothing other than cerebral edema and a minor degree of focal pulmonary atelectasis with an associated broncho-pneumonia. Microscopically there is an interesting type of vascular lesion which is most conspicuous in pulmonary veins and arteries. This consists of focal endothelial cell swelling with superimposition of a miniature thrombus on the endothelial plaque (Figure 1). In other in-

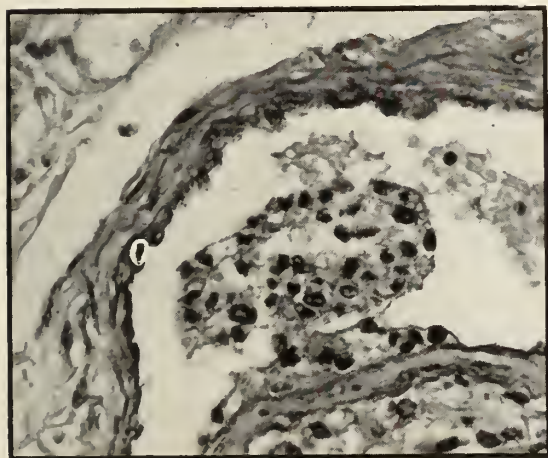


Figure 1.—Swollen endothelial cells surmounted by a miniature thrombus in a pulmonary vessel. Hematoxylin and eosin X 700.

stances swollen and proliferating endothelial cells are more haphazardly mixed with leukocytes so as to form a fan-like excrescence (Figure 2). The other histologic variation consists of a mural thrombus attached to the vessel wall at a point where there is edema and degenerative changes in the collagenous component of the vessel wall (Figure 3). Bodies of some sort occupy the swollen endothelial cells. I have always found it extremely difficult to identify positively rickettsia in tissue sections. There is a mild bronchopneumonia present which appears to be of secondary bacterial origin and there are bacteria demonstrable by special stains. How many of the bodies in the



Figure 2.—Mixture of swollen endothelial cells mixed with leukocytes radiating out from the vessel wall. Hematoxylin and eosin X 350.

endothelial cells are bacteria and how many are rickettsia I cannot say. It appears likely that at least some are rickettsia as this rather striking vascular lesion is not usually produced by the ordinary secondary bacterial pneumonias. There was edema of the brain, but none of the so-called typhus nodules could be found. There was a mild, early interstitial myocarditis and reticuloendothelial hyperplasia of the lymph nodes, spleen and lymphoid apparatus of the intestine.

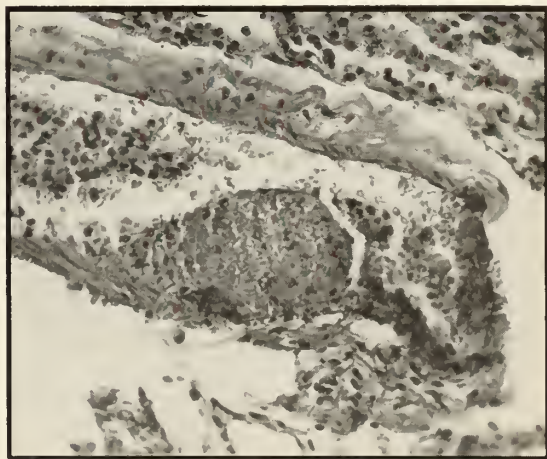


Figure 3.—Localized mural thrombosis of blood vessel. There is degenerative change in the vascular wall which cannot be visualized in this photograph. Hematoxylin and eosin X 350.



## PRESIDENT'S PAGE

### MEDICAL COLLEGE HOSPITAL

In South Carolina, as in many other states, medicine is organized and distributed on a state basis. The state medical association is composed of the various county societies. It is the medical organization recognized officially by the state and federal governments in policy-making and allocation of funds. Indigent patients are cared for upon a county level. Federal and state agency supported cases are cared for upon a state level. Only in exceptional instances does medical care for these cases extend beyond the border of the state. Blue Cross and Blue Shield function within the state, though there is a close affiliation between similar programs in other states. Private patients in general are cared for within the state, though there are a number of exceptions in which they are referred to medical centers beyond its borders.

With medicine thus organized it is important that there be reasonably complete medical service within the state. Excellent facilities are available in a number of community hospitals, but these are of necessity limited by economic and other reasons. It is to supply services not available in community hospitals that is one of the chief purposes of the Medical College Hospital. It is now in operation and well staffed in the various departments. It should be supported by the medical profession so that its sphere of usefulness will steadily increase. A close association should develop between the Medical College and the practicing profession. The Medical College Hospital can be considered the capstone of medicine in the state. It makes available within its borders skills and facilities which formerly had to be sought elsewhere.

William H. Prioleau, President  
South Carolina Medical Association.

# Editorials

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## DO YOU WANT SOCIAL SECURITY?

Who wouldn't like to feel that regardless of all personal financial hazards he would finally reach that happy day in that happy land where he would only have to wait for the mailman to hand him a monthly check, one which would secure his existence for the next month, at least on a diet of hog and hominy if not on caviar and champagne. In a selfish way, who wouldn't want that free money derived from hypothetical earnings of generations to come, borrowed from all of us and sunk into obligations which all of us and the third and fourth generation of us are expected to pay? On the false face of the proposition the prospects look good for our immediate benefit, but there is little behind that face to encourage confidence in the economics of the whole arrangement.

In this day of something-for-nothing the social security scheme has flowered and already bears rich fruit even though at its roots soundness never did exist. Relatively few people seem to stop to doubt the health of the tree, but among the questioners has always been the physician.

Granted that the objections raised by physicians have not always referred to the soundness of "social security", but sometimes to its practical value to the medical group alone, our profession has been the one element which has stood solidly against coverage, and by its stand up to this time has discouraged the legislators from including it under an undesired blanket.

It is comforting to think that the profession is honestly convinced that "social security" is bad for itself and more comforting to think that medical men are sufficiently acute to believe that "social security" as we now know it is unsound for everybody.

Now comes a roll of thunder on the left by that group which composes The Physicians' Forum, an organization not unfamiliar in its radical approach. The Committee on Social Security for Doctors is circularizing the country, expounding the financial benefits to be

obtained from coverage of physicians by "social security", splashing the pages with guileful tables of easy money, and saying not a word about where the money comes from in the long run. This is stuff which can appeal to those who take no trouble to inform themselves, and can do much harm to all of us. Before we accept any of it, we should be familiar with the kind of information which has appeared recently in the pages of the *Journal of the AMA*, and we should be prepared to form a sound opinion on which to base our convictions and our effort to preserve our own salvation.

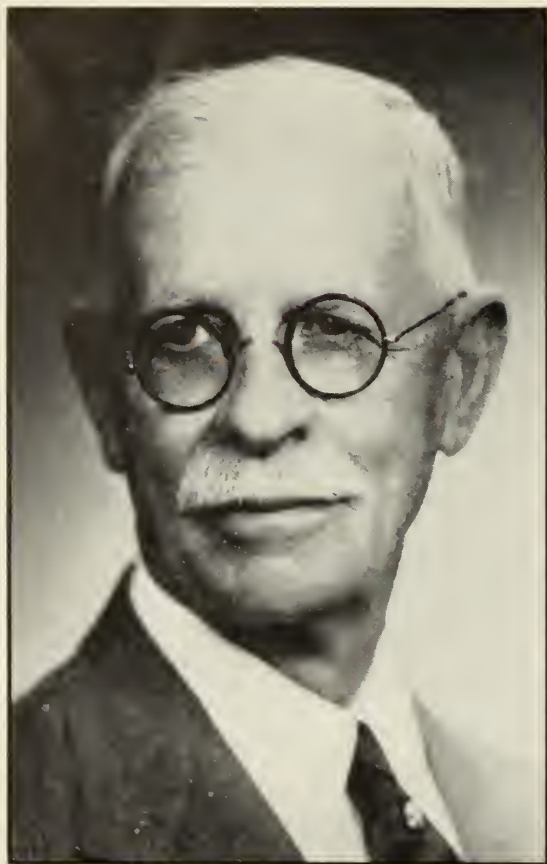
If the thunder can be kept far to the left and confined to a bare rumble for lack of an audience, there is less likelihood that the political lightning which creates it will strike close to us.

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## A MAN'S CONTRIBUTION TO HIS COMMUNITY

When one has great respect and admiration for a man it seems fitting to acknowledge this fact. The medical profession can well be proud of this man's life and contributions to his home community. Micah has said "you have been told, Oh man, what is good, and what the Lord requires of you; only to do justice, and to love kindness, and to walk humbly with your God!".

On July 23, 1867, two years after the Civil War and the year the Suez Canal was opened and that Lister published his "Antiseptic Principle in Practice of Surgery", a man was born in the lower part of Greenville County. His early life must have been difficult indeed when one recalls the economic history of that period. This man was the son of George W. and Louise Cox Richardson, native of that section, and he was one of several born of that couple. He received his primary education in the local schools and went on to study medicine in the old Atlanta Medical College, now a part of Emory University, where he received the degree of Doctor of Medicine in 1894. He came back home and began an active practice of



DR. RICHARDSON

medicine, which has now continued for more than 62 years. That he is active and beloved is fully appreciated by those of his colleagues who see him regularly at our County Medical Society Meetings and from time to time in the halls of our local hospitals. Now in his 89th year his eyes have failed a bit, but not his vision. He is at work every day and many of his present patients are grandchildren of his earlier patients. He told me recently of delivering the daughter of a man he had ushered into the world some fifty years ago. In the sixty years of his practice he has delivered more than 6,400 babies and some of them in this last year. In the 62 years of his practice he has taken two vacations of two weeks each, one for his second honeymoon in 1913 and the other for a trip to Mexico some fourteen years ago. The only other time lost from his practice was due to surgery when his gall bladder was removed about seven years ago. He began in the horse and buggy days and for many years

practiced on horse back. This was before the days of the telephone and electric lights, and even after he began driving automobiles, his love of good horses continued. He did not give up riding fine saddle horses until attacks of gall stone colic made it necessary when he was 80.

In addition to a full and active practice of medicine he has found time to serve his community in many other ways. He enjoys the most remarkable confidence of his townsmen and has served as the Mayor of Simpsonville for forty consecutive years. This may well be a record of its own. He has also served as a member of the School Board for thirty years, many of them as chairman. He is a life long member of the Baptist Church and has served as superintendent of its Sunday School for twenty years.

This man has indeed devoted his life to Simpsonville and its community. The practice of medicine has been both his love and his labor. He is the only living charter member of the Greenville County Medical Society and he has continued to be actively associated with it to this day. He was president of our society about 1910 and became an honorary member a few years ago. It has been my privilege to know this great physician for more than thirty years. Never has one heard of his doing or saying an unkind thing. His ideals are high and his life truly merits the great tribute of Robert Louis Stevenson to a physician.

Lawrence L. Richardson, M. D., gentleman, Christian, civic leader, physician and friend. He has given a full measure of service to his fellow man. May there be others like him.

Hugh Smith, M. D.

#### LICENSURE

The readers of this journal are probably quite familiar with the many assaults of one sort and another that have been leveled at state boards. Apparently there is a rather concerted move on the part of a very small minority to take the privilege of medical licensure away from the several states and put it in the hands of a central examining body, thus conferring on a single group the privilege of licensure. The legally constituted state boards of the several states object to this centralization of authority for very sound reasons, among which one might mention:

First, taking away from the states the right to de-

cide who is to practice and who is not to practice within their borders.

Second, the lack of legal status, unless the board was set up by Congress. The present national board is suggested by some as the logical examining board for all. If this board were the sole examining body, it would not be subject to review by state courts but would be subject to the arbitrary adjudication of the federal courts, if established by Congress. As matters now stand, the action of the National Board of Medical Examiners is not subject to review by anyone. The state boards of medical examiners hold that each state has much in common with the boards of other states, but still has some differences that each state should have a right to decide. For instance, South Carolina does not admit foreigners to licensure until they become full citizens of the United States, nor does it grant licenses to those who do not hold diplomas from medical schools in the United States or Canada—while many other states, with a large foreign population, do not regard these two tenets as important.

The State Board of Medical Examiners of South Carolina met in Columbia in June to conduct the annual examinations. At this meeting many problems were brought up and discussed relative to licensure.

The first decision made was in the field of reciprocity. Here it was decided to do away with all formal reciprocal agreements with other state boards, and in the place of these reciprocal agreements, to inaugurate the principle of licensure by endorsement. Now it is possible for any citizen of the United States holding a diploma from an A grade medical school in the United States or Canada to obtain a license to practice medicine in South Carolina. The board considers it of no importance whether the states from which applicants come are willing to take, by endorsement, physicians from South Carolina. The board felt that there is no reason for South Carolina not to accept all the good doctors that want to come and practice here. What the other states do relative to South Carolina physicians is their concern.

The second matter discussed was relative to the licensing of interns, residents, and other physicians working in hospitals. It was felt by the board that all physicians should be licensed—this to include recent graduates now serving internships and residencies. This phase of the program is a little more complicated than the matter of reciprocity and endorsement. There are many points that have not as yet been fully considered, and changes may need to be made to effectively carry out the plan. However, to put before the members of the state medical association the principal points, the following is quoted from a letter sent by the chairman of the board to each member of the board and approved. Some changes will, of course, be necessary, but the principles are covered.

"1. At what date will the licenses be available?

It was my idea that these licenses would not be available until after the meeting of the board in November. Meanwhile, hospital relationships with interns would not be disturbed.

"2. Will these permits be issued to suitable applicants on a voluntary basis, or will all be required to comply?

Since the contracts with interns for the present year had already been made before this new plan was agreed upon, it would, from necessity, have to be on a voluntary basis so far as this group is concerned, but for those beginning their internships after the first of the year the licenses would be compulsory—that is, beginning January 1, 1957, or some such date.

"3. Residencies:

All physicians beginning residencies after the first of January, 1957, will be required to have a regular license, just like everybody else. This would likely not apply, at the present, to those who have already started on their residency training program under the old regime, but would apply to all residents, assistant residents, etc. who will begin their tour of duty after January 1, 1957.

"4. Narcotic licenses:

With regard to narcotic licenses, I see no reason why they should not be given a narcotic license, since under the present situation interns prescribe narcotics within the confines of the hospital for admitted hospital cases, but as I remember this point was not firmly decided on. Personally, I think it would be well for these boys to have the privilege of obtaining a narcotic license.

"5. Intern permits will be granted only to interns serving in an accredited hospital for intern training.

"6. No intern will be granted a permit for hospital training unless he can, at the termination of the internship, be eligible for a permanent license.

"7. Fee

Ten dollars, which is about as low as we can get by on—this fee not to be considered a part of the reciprocity fee if reciprocity is obtained later."

George R. Wilkinson, M. D.

## STEP BY STEP PROCEDURE FOR OBTAINING TEMPORARY AND PERMANENT LICENSURE

### A. Temporary Licensure

1. Write the Secretary of the State Board of Medical Examiners, Mr. N. B. Heyward, 1329 Blanding Street, Columbia, South Carolina, requesting a blank for temporary licensure.

2. Fill in the form fully. This form is rather explicit and is identical to the permanent licensure form.

3. Mail the form back to the Secretary of the State Board of Medical Examiners with a letter of endorsement from an accredited hospital or school in which you intend to work. This letter should be from the Superintendent of the Hospital or Dean of the School as the case may be, stating the date you will begin your work and the date upon which this tour of duty will terminate.

4. Enclose a letter stating that you are herewith enclosing application blank with a letter from the official of the institution and check for \$10.00. State that the application is for temporary licensure.

NOTE: Temporary licenses will be available for first year internes and fellowship students.

#### B. Permanent Licensure

1. Write the Secretary of the State Board of Medical Examiners, Mr. N. B. Heyward, 1329 Blanding Street, Columbia, South Carolina, requesting a blank for permanent licensure on the basis of endorsement.

2. Fill in the blank and mail it back to the Secretary of the Board. The Secretary will review the blank and if everything is in order will notify the applicant the time and place of the next meeting of the Board.

3. Should the applicant, for good reasons, desire to obtain permanent licensure earlier than the next meeting of the Board he may request the Secretary by letter for an appointment to appear in person before a committee of the Board in Columbia, South Carolina. The Committee consists of Dr. Harold E. Jervey, Jr., Columbia, South Carolina, Dr. K. D. Shealy, Columbia, South Carolina and Mr. N. B. Heyward. If there is no controversial point the Committee will approve the applicant for endorsement and the license will be straightway processed. The Committee is authorized to approve applicants by endorsement only when all points are quite in order. The application, without prejudice, may be deferred until the full meeting of the Board.

4. The fee for licensure is \$50.00 and is payable at the time of appearance either before the Committee or the Board.

NOTE: Permanent licensure will be required by all physicians one year after graduation or completion of their first year's internship. This includes assistant residents, residents, and graduate students doing clinical work. It will not be required for graduate students strictly in laboratories where no legal liability is assumed.

It will be noted that the application for temporary licensure is precisely the same as that for permanent license and all procedures are identical except three: (a) Personal appearance before the Board or Committee of the Board is not required. (b) A letter of endorsement from the institution from which the applicant will work is required.

(c) The fee is \$10.00 instead of \$50.00.

C. After one year of temporary licensure in an accredited institution should the holder of the license desire permanent licensure the procedure will be as follows:

1. Write the Secretary of the State Board of Medical Examiners, Mr. N. B. Heyward, that a permanent license is desired giving the number of the temporary license held and the name of the hospital or school in which the year's work has been done.

2. Enclose in the letter a statement from the Superintendent or Dean as the case may be on the official stationery of the institution. It should contain the dates when work was started and when completed together with appropriate remarks concerning character of the applicant and whether the work done was satisfactory or not.

3. The Secretary of the Board will write the applicant when and where to meet the Committee or the Board.

4. Appear at the appointed time bringing along the certificate or diploma from the hospital or school and other addenda stated in the original application form. This includes medical school diploma and licenses previously issued, if any.

5. The fee is \$50.00.

D. For those who have not been previously examined by any State Board of Medical Examiners:

1. Write the Secretary of the Board of Medical Examiners, Mr. N. B. Heyward, 1329 Blanding Street, Columbia, South Carolina, requesting application blank to take the written examination.

2. Fill in the blank completely.

3. A letter will be written to the applicant by the Secretary of the Board of Medical Examiners when and where the examinations will be held.

4. Registration for the examination usually takes place the day before the examination begins. At the registration meeting all applicants may be registered that qualify under the law.

It may be well to state here that no changes have been made relative to the procedure in obtaining permanent licensure either by examination or endorsement.

The candidate for examination or endorsement must be a citizen of the United States holding a diploma from a grade A Medical School in the United States or Canada. These requirements apply to all applicants both temporary and permanent.

This program is not designed to affect contracts already entered into but will be enforceable at the expiration date of the present contracts. Licenses will be obtainable January 1, 1957 and thereafter so far as internes go in particular. Licenses will be required of all beginning their internship after January 1, 1957.

The Board of Medical Examiners is a part of the State Judiciary. It is not a part of the enforcement component. Complaints to the Board may be made only against individuals who have been licensed by

the Board. These complaints may arise from the Department of Justice, County Solicitor or Counselors of the District in which the physician is practicing.

For institutions to cover their workers by insurance, licensure is necessary. Physicians doing any sort of practice that may entail liabilities should be licensed. The holder of a license is legally an accredited physician when his license has been registered in the Court House in the county where he practices.

#### DISABILITY INSURANCE BENEFITS UNDER SOCIAL SECURITY "Public Law 880"

Disability is defined under Public Law 880 as, "The term 'disability' means inability to engage in any substantial gainful activity by reason of any medical determinable physical or mental impairment which can be expected to result in death or to be of long-continued and indefinite duration. An individual shall not be considered to be under a disability unless he furnished such proof of the existence thereof as may be required."

The determination of physical disability at age 50 under Social Security is under the United States Department of Health, Education, and Welfare, Social Security Administration.

There are eight (8) offices in the State, in addition certain border counties are handled out of Savannah and Augusta.

Mr. William Nixon is in charge. The next higher echelon, so far as disability reports are concerned, are offices in Baltimore (moved from Washington).

Applications for disability benefits at age 50 are being received as of October 1, 1956. Payments will not start until July 1, 1957.

A person under Social Security must have been disabled for six (6) months before his application will be received. Under Social Security the age for men is 65 and women is 62. Under regular Social Security the person may earn as much as \$1,200.00 a year before it affects his Social Security check. Under the disability provisions he cannot earn that nor any substantial sum as it would be construed that he is not disabled as defined under law.

#### STEPS IN SECURING DISABILITY PAYMENTS AT AGE 50 ARE:

1. Applicant 50 years or over writes in to the Social Security office that he is disabled and that he desires to avail himself of the benefits.
2. He is given a preliminary questionnaire. (Form 08-D820)
3. He sends in basic questionnaire form to local office.
4. While this is being done local office gets work report from Baltimore office.
5. If he is found properly eligible to apply, he fills out "Application to Establish Disability" questionnaire. This questionnaire, among other things, lists the doctors and hospitals he has visited.

6. Applicant signs letter permitting doctor who treated him to furnish information to Social Security office.

(note) If applicant is too disabled to come to Social Security office to fill out the above two forms, the Social Security office will send someone from the office to him.

7. Applicant takes or sends medical form and "release" to doctor who treated him with the request that he fill it out. (Form OA-D826)
8. Doctor fills this from his record. If present physical status is desired the patient will ask for it.
9. The applicant pays for it.  
(note) It is incumbent upon the applicant to furnish proof of disability.
10. The doctor is not asked to render an opinion as to disability. It is important to note date of onset and prognosis.
11. The doctor sends the completed (or as near as he can) form direct to the Social Security office. It is not given to the applicant. A narrative report may be sent in instead of the medical report form.
12. When local Social Security office receives the doctors report, the papers are then sent to Vocational Rehabilitation office of the State Department of Education.
13. Vocational Rehabilitation office reviews this and if not sufficient evidence to make determination of disability they look further. They have lay boards plus medical doctor. The Vocational Rehabilitation determines disability on evidence submitted.
14. Papers are then sent to Baltimore office for review. They have board of doctors for consultations. Standard guide for all states.

There is a situation in which the Government might pay for an examination. That is this: If a person is on disability and the Government has reason to believe that he is no longer disabled, the Government might have this person examined to determine his present physical condition.

In addition to the disability at age 50, there are two other conditions in which one may be "disabled" under Social Security.

1. Children under 18.

If the father or mother is receiving old age insurance or if the child has lost the support of a father thru death and the child is disabled before age 18 and continuously so, he may draw disability insurance.

2. Those disabled before age 50.

If under Social Security and a person becomes disabled before 50, they may have their Social Security record "frozen" which will protect them and allow them to start drawing disability Social Security at age 50.

To sum up:

1. The doctor is not asked to render an opinion as to disability of applicant.

2. It is up to the applicant to have the medical form filled out. He pays for it.
3. The doctor is asked to fill out as much as he can, not necessarily each section.
4. If recent examination is necessary the patient will request it.
5. In case of children's disability, it must have begun before age 18. That is, the disability existed and continued before 18 years of age.
6. Medical evidence as to date of onset and prognosis of the case is important. Note the definition disability says in part—"---- impairment which can be expected to result in death or to be of long-continued and indefinite duration--".

Frank C. Owens  
Chairman, Committee on Legislation and  
Public Policy

The results of the Grand Rapids-Muskegon study after 10 years of observation indicate that the adjustment of the fluoride content of a communal water to an optimal level (approximately 1 p.p.m. fluoride) will produce the following effects:

1. A striking reduction in the prevalence of dental caries in the deciduous teeth. At the peak of prevalence, namely 6 years of age, the caries rate for the deciduous teeth was reduced by about 54 percent.
2. A marked reduction in the prevalence of dental caries in the permanent teeth. In children born since fluoridation was put into effect, the caries rate for the permanent teeth was reduced on the average by about 60 percent.
3. Some benefit among persons whose teeth having already formed or erupted when fluoridation is begun.
4. No undesirable cosmetic effect from dental fluorosis.

*Pub. Health Rep. 72-657 (July 1956)*

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## PRESS COMMENTS

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DR. J. E. ORR

The country doctor, as those of us old enough to remember once knew him, was a man who served humanity as his first duty. He traveled the good roads and the muddy roads to get to the ailing, regardless of the time of day or night.

The country doctor was one of his community's leaders, and he served all the people, regardless of station in life.

Such a man was Dr. James E. Orr of Seneca, who passed away Tuesday morning. He will be missed in our community, because he was one of those who placed service to his fellow-man before self.

Dr. Orr was a brilliant man, recognized in medical circles throughout the South for his skill in diagnosing and treating illnesses of all kinds.

Dr. Orr was a friendly man, with that gentle manner that put a patient at ease the minute he stepped into the sickroom.

Much more could be said about Dr. Orr, for he was a man of accomplishments. In his many years of service throughout this area he made a host of friends who will long remember him and love his memory.

*Seneca Journal, Aug. 29, 1956*

### BYERLY HOSPITAL

Announcement is made in today's paper of the purchase of the Byerly Hospital in Hartsville by the Board of Trustees of that institution. The purchase was made from Dr. W. L. Byerly, Sr., founder of the hospital and guiding spirit in its growth.

According to the announcement, the purchase does not mean any change in management or in staff. Dr. Byerly will continue as superintendent.

The purpose of our comment is to say that the Byerly Hospital fulfills the dream of a man who has been completely dedicated to his profession for many years. That man is Dr. Byerly himself. A greatly beloved physician, he is one of the few remaining "old school" men of that profession. In clinic and hospital and home, he has served the people of his area with a devotion that is rare and a skill and knowledge that have kept abreast with the progress of medical science.

During recent years Dr. Byerly has added new wings to the hospital which have increased its capacity for hospital service. The change of ownership promises continued expansion, we are told.

The Florence Morning News joins with the people of Hartsville in welcoming this announcement. It will afford Dr. Byerly opportunity to pursue his profession relieved of the burden of ownership.

*Florence Morning News, Aug. 17, 1956*

During the spring of 1954 the Johnston Jaycees elected, Dr. Sam Garrison as Local President for the following year. This in itself was rather unusual since a Doctor has practically no free time to participate in Jaycee work, much less do all the work that Local President calls for. But Sam somehow found time to do much Jaycee work and came up with a record such as this:

(1) Sponsor football game to raise money for band uniforms, (2) Assistances given Garden Clubs in "Jitterbug Campaign," (3) Float entry in Christmas parade, (4) Football banquet and trophies to outstanding player, (5) Goodfellows project which contributed food to approximately 40 needy families at Christmas, (6) Christmas lighting contest, (7) DSA banquet—young man of year was not a Jaycee but went



*Dr. Sam Garrison, left, and Dr. Bodie*

on and won State DSA Award, (8) Surplus clothes project—clothes to approximately 20 needy families, (9) Telephone etiquette project, (10) National Sunday School week, (11) Started Jaycee paper headed by Bill Gable. To add to this and as a fine record, over 80% of the membership participated in one or more of the individual projects.

When it finally came time in the spring of 1955 for Sam to lay down the gavel, there was another able-bodied Doctor named U. Hoyt Bodie to take his place as head of the Local Organization. Right from the start Hoyt laid down the law of more work and outlined the projects to be carried out. The first project Dr. Hoyt Bodie started was a membership campaign which ended up increasing the membership by about 35%. Next, came a safety program which gained national publicity for its efforts, due to chapter publicity through the local paper and Johnston no accident record. Next came a campaign to raise money to carry on Jaycee work in the form of Birthday Calendar sales which went over in a big way with about 30% of total population of Johnston subscribing. Fourth, came the "Goodfellow campaign" which again gave food to approximately 50 needy families. Fifth, in close succession, was a Jaycee sponsored Christmas dance and Christmas lighting project which caught on with a bang. Sixth, shortly after this, came the VOD contest and awards to the winners, the male beauty contest—won by Dr. U. Hoyt Bodie. Seventh, came the DSA banquet and due to his hard work as a Doctor, Jaycee President and participation in church and local affairs, Dr. U. Hoyt Bodie received the Outstanding Young Man of the Year Award. We think he very well deserved it. Eighth, on the same program was the Young Farmer Award which went to Lewis Holmes for his outstanding scientific farming practice. Although he is not a Jaycee, he is very active in numerous groups and also went on to win the State FOYF Award. Ninth, after all this was over, Dr. U. Hoyt Bodie did not stop but took on even more work in the form of a model airplane contest and the Junior

Citizenship Award is now in the process of being completed. He also put local Jaycee paper on basis with any Jaycee paper anywhere with aid of Bill Gable. We do not know what the last few months of Hoyt's administration will hold, but we feel sure it will be more work and fun for the local chapter.

By Lawrence Hagan  
Publicity Chairman

*ACTION, May 1956*

## ANNOUNCEMENTS

The Duke University School of Medicine cordially invites you to attend and participate in its Thursday Teaching Program. This program began Thursday, October 11, and will continue throughout the year on each succeeding Thursday.

The schedule of instruction is as follows:

- 10:00-11:00 Conference alternating between Pediatrics, Psychiatry, Obstetrics and Surgery
- 11:00-12:00 Clinicopathological Conference
- 12:00- 1:00 Medial Grand Rounds
- 1:00- 2:00 Lunch as the guest of the Faculty of the School of Medicine.

Those who desire to work in the various clinics or observe are cordially invited to do so. No previous arrangement is necessary for any of the above exercises.

Category I credit is allowed by the American Academy of General Practice. In order to obtain this credit it is necessary to register with the Director of Postgraduate Medical Education, Duke Hospital.

MEDICLINICS second annual postgraduate refresher course will be held in Fort Lauderdale, Florida, March 4-14, 1957.

The Florida Academy of General Practice is the local sponsor of the course. The American Academy of General Practice has certified this course for 32 hours of formal postgraduate study—Category I—for those Academy members in attendance.

The course consists of 32 hours of lectures and panels conducted by a faculty well able to present the varied subjects in the several fields of medicine.

The program also lists seven (7) luncheon meetings in addition to the 32 hours of lectures and panels. Attendance at the luncheons is optional and will be limited to forty (40) participants in order to stimulate informal discussion of the subject. The cost of each luncheon is \$2.50 per plate.

Registration is limited to 300 in order to preserve the informal and intimate atmosphere in the lecture room.

The tuition fee for the course is \$50.00 payable in advance. Checks should be made payable to MEDICLINICS and mailed to 516 Medical Arts Building,

Minneapolis 2, Minn. Registration will be closed when the limit is reached. If you desire to attend luncheons, please include with your check \$2.50 for each luncheon you wish to attend and list those luncheons.

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## CORRESPONDENCE

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September 26, 1956

Dr. J. W. Jervey  
Greenville, S. C.

Dear Dr. Jervey:

If the "comie strip", *Rex Morgan, M. D.*, is carried by a newspaper in your area, you will note that the subject of glaucoma is under discussion at present and the value of a medical examination is being emphasized. It is likely that the Optometrists will be in full cry and claim to be discriminated against because of their superior college *level* training of five years, the fact that they make 75% of the eye examinations and that they claim to be well qualified to make medical diagnoses. The experience being related in this series of sequences in the "strip" are exactly those experienced by the author with respect to his own father. They are, therefore, factual and are augmented by medical background.

It is important that the author be upheld in every possible way. If there are "letters to the editor" from Optometrists, have your local Medical Society or Ophthalmic Society prepare an adequate answer. In their preparation, the following might be of some help. There are only three Optometry Schools now connected with Universities, namely, Ohio State, California, and Houston, and in these the attendance is dwindling. Columbia has closed its School of Optometry. Their private schools, of course, by no means reach the educational level of our pre-med. or medical schools, and this point should be developed. Ophthalmologists now do 55% of the eye examinations made in this country annually, on the basis of factual figures obtained from our leading optical houses, and this percentage is increasing daily. The Optometrists have always claimed that we made but 25%. All of you have patients who have suffered the same experience as Melissa. If possible, get such patients to write a "letter to the editor".

The American Optometric Association will undoubtedly make every effort to submarine and sink this column for which Nick Dallis, M. D. has just been presented a special citation by the American Medical Association, the United States Food and Drug Administration, the American Cancer Society, and the President's Committee for Employment of the Physically Handicapped. Defend it to the utmost.

Sincerely,

RALPH O. RYCHENER, M. D.

Chairman, Public Relations Committee  
Section on Ophthalmology of the A.M.A.

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## DEATHS

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DR. J. LEWIS SMITH

Dr. J. Lewis Smith, 74, retired physician of Columbia, died July 12, 1956.

Dr. Smith was a graduate of Furman University and Medical College of South Carolina. Until his retirement several years ago, he practiced and resided in Williston. For a number of years he was surgeon for the Southern Railway Company.

DR. JAMES ALECK KELLEY

Dr. James Aleck Kelley, 37, Georgetown physician and surgeon, died October 5th. He had been in declining health for some months and seriously ill for the past month.

Dr. Kelley was born Feb. 13, 1919, at Kingstree and was a son of Dr. Edward Theron Kelley and the late Mrs. Lorena Ross Kelley. He was educated in the schools of Kingstree and was graduated from the Citadel in 1940, and from the Medical College of South Carolina in 1943.

Following his graduation, he worked with his father in the operation of Kelley Memorial Hospital in Kingstree for several months. During World War II, he served in the Army Medical Corps, as a captain in the paratroopers, in the Pacific Area.

After his discharge, he took graduate courses in surgery at Bellevue Hospital in New York and at Horace Harding Hospital on Long Island. Dr. Kelley went to Georgetown in 1949 and since that time has been associated with his father in operation of the Kelley Clinic.

DR. DAVID A. WILSON

Dr. David A. Wilson, 46, Greenville surgeon, died Sept. 17, following several months of illness.

Dr. Wilson was a native of East Liverpool, Ohio.

His early education was received in the East Liverpool schools. He received his A. B. degree from Wooster, Ohio; his M. A. degree from Wesleyan College, Middletown, Conn., and his M. D. degree from Ohio State University, Columbus, Ohio.

He did his residency in general surgery at Duke University and in 1946 began the general practice of medicine and surgery in Greenville.

He was also a member of the Greenville County Medical Society; the South Carolina Medical Association; the American Medical Association; the Southern Medical Association; the S. C. Surgical Society; the Southeastern Surgical Congress; the American College of Physicians and Surgeons; a Fellow in the American College of Surgeons, and a member of the American Board of Surgery. He served as president of the South Carolina Surgical Society during 1955-1956.

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## NEWS

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The Seventh District Medical Association met at Georgetown on September 20. The speakers heard were Drs. William H. Prioleau, Robert M. Paulling, Edward F. Parker, R. Maxwell Anderson, and Lawrence L. Hester, Jr., all of Charleston.

Greenville Medical Day sponsored by The Greenville County Medical Society and the Staff of the Greenville General Hospital was held on October 2, 1956. The speakers were Drs. William W. Pryor, James A. Manning (of Rochester, N. Y.), Charles A. Hufnagel, Frank F. Espey, W. Thomas Brockman, and R. Bruce Logue (of Atlanta).

The Southeastern Allergy Association will meet in Charleston in October 1957. Dr. Katherine B. MacInnis of Columbia is the secretary-treasurer.

Dr. Vernon B. Moore, Greenwood, has been appointed on the Committee on Maternal Health replacing Dr. John Fleming, resigned.

Horry County has withdrawn its affiliation with the Pee Dee Medical Association.

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### State Societies Move Rapidly On 'Medicare' Arrangements

More than three-quarters of the state medical societies have taken action looking toward start of the military dependent medical care program (medicare). They have indicated they have decided on their contracting and disbursing agents, have agreed to submit fee schedules, and to set up committees that will settle medical questions and work out changes in the fee schedules from time to time in the future.

Of the states active in preparations, approximately 80% have indicated they will do their own contract negotiating for the doctors of the state.

After regulations have been drawn up by Defense Department in cooperation with the Department of Health, Education, and Welfare, Defense Department plans to call representatives of the state societies to Washington. Here contracts will be worked out for the individual states.

On the hospital care phase, Defense Department is moving ahead with plans for dividing up the country between Blue Cross and commercial insurance companies. Negotiations for this part of the program will continue for several weeks.

Louis P. Jervy, Jr., M. D. announces the opening of his office for the practice of internal medicine at 95 Rutledge Avenue, Charleston.

Dr. S. Edward Izard of Charleston has been accepted as a fellow of the American College of Sur-

geons. He was one of nine South Carolinians so honored.

Others are Drs. James Allen and Norman D. Ellis, Jr. of Florence; George F. West of Camden; Phillips L. Bates and Vernon B. Moore of Greenwood, Homer J. Hancock and Samuel H. Huff, Jr. of Anderson and Wendell H. Tiller of Spartanburg. The elections were announced during closing ceremonies of the organization's annual clinical congress.

"In terms of current earning power," reports *Medical Economics* in its October issue, "the four top specialties seem to be radiology, neurosurgery, orthopedic surgery, and plastic surgery." The magazine bases its conclusion on results obtained from its eighth Quadrennial Survey of doctors' incomes.

The survey shows that the typical self-employed radiologist nets \$25,040 yearly; the neurosurgeon, \$24,988; the orthopedic surgeon, \$24,967; and the plastic surgeon, \$23,050.

A.M.A. President Dwight H. Murray and Julian P. Price, Florence, South Carolina, a member of the A.M.A. Board of Trustees, appeared on the final day's program of the 58th annual convention of the American Hospital Association in Chicago.

Dr. Murray, one of five speakers on the final general session program, covered two important problems: continuing good patient care and hospital-physician relations.

"I would be less than frank," he said, "if I did not say that the medical profession is concerned by and vitally interested in the attempts by certain hospitals . . . direct or indirect . . . to inject themselves—in our opinion improperly—into the practice of medicine."

Dr. Murray said that the hospital control of medical practice cannot possibly serve the best interests of the patients, but will only restrict or destroy the professional freedom and independence of the physician to practice the science and art of healing.

Dr. Price, who is one of the A.M.A. representatives on the Joint Commission on Accreditation of Hospitals, served as moderator of a panel which discussed for an hour and a half the subject: "The Hospital and Changing Patterns of Medical Care."

Dr. Price's comments reflected his own experiences in a Chicago hospital where he was confined for three days during the annual A.M.A. meeting last June.

Jovial and smiling, Dr. Price said hospitals today are "a domain of dedicated women," adding that during his stay in the hospital he had contacts with only three men—the attending physician, the orderly, and the chaplain.

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### A.M.A. Secretary's Letter

Dr. Samuel T. Burnett of Saluda county has recently gone to Anderson, to practice medicine with Dr. James G. Halford, Jr., of Johnston, and Dr. Robert C. Thompson.

Dr. Burnett attended Furman University. Then,

setting his goal on pharmacy, he entered the University of South Carolina and, after receiving his degree went to Bishopville where he worked for some time as a pharmacist. Soon he reentered college, receiving his M. D. from the Medical College of South Carolina and interned at the University Hospital in Augusta.

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Dr. Herbert L. Allen, who has been a medical practitioner in Bamberg for the past three years, has left for Melbourne, Fla., where he will be located.

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Dr. Malcolm U. Dantzler, Georgetown County Health Officer for the past three years, has recently been awarded a United States Public Health Service Traineeship for graduate study in the field of public health administration.

Dr. Dantzler plans to enter shortly the School of Public Health of the University of North Carolina.

During his absence, the work of the Georgetown County Health Department will be directed by Dr. Harold S. Gilmore, who has been with the department for the past two years.

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Distribution of \$2,455,802 in federal funds for hospital and health center construction and plans for a program for mentally retarded children have been approved by the executive committee of the South Carolina State Board of Health.

The approved distribution of federal funds for hospital and health center construction gives 66 per cent of the total amount to general hospital construction. The allocation was \$1,620,829.32.

Mental hospital construction will receive 9 per cent of the total funds, or \$221,022.18; health centers, 15 per cent, or \$368,370.30 and the remaining 10 per cent, or \$245,580.20, will be in reserve.

No funds were allotted for T. B. hospital construction.

Counties selected to participate in the construction program must match federal funds with local funds.

The approved plan for a program for mentally retarded children will amount to \$80,000.

Screening clinics will be established in strategic areas throughout the state, Dr. G. S. T. Peebles, South Carolina health officer, said yesterday.

The children determined rehabilitable will be referred to the Medical College at Charleston for necessary diagnostic tests and treatment, he said.

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Dr. Lawrence Ennis Eddlemon has announced the opening of offices for the general practice of medicine in Startex Medical Building at Startex.

A native of Phoenix, Arizona, Dr. Eddlemon is a graduate of La Sierra College, Arlington, California, from which he holds a B.A. degree in chemistry. He received his M.D. degree at the College of Medical Evangelists School of Medicine and completed his internship at General Hospital, Spartanburg.

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Drs. Frank H. Stelling and Leslie C. Meyer an-

nounce the association of Dr. Edwin H. Martinat in the practice of orthopedic surgery at 9-11 Medical Court, Greenville.

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Drs. S. Edward Izard and Ritchie H. Belser announce the removal of their offices for the practice of orthopedic surgery to 112 Ashley Avenue, Charleston.

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Dr. Henry Donato announces the removal of his office to 77 Rutledge Avenue in Charleston for the practice of general surgery.

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Dr. Reynolds Young, a native of Due West, has opened an office in Anderson for the practice of medicine. Dr. Young attended Erskine College and Vanderbilt School of Medicine. He interned in Philadelphia and completed his residency in Denver, Colorado.

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Dr. J. Pierce Horton, Jr., Lancaster physician, has been named chairman of the 1956 Christmas Seal Sale in Lancaster county.

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Dr. Benjamin O. Stands, Columbia pediatrician, has been appointed chairman of the Richland County Red Cross blood program for 1956-57.

Dr. Stands succeeds Dr. William M. Bryan, Jr., for the term of office beginning July 1.

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Dr. James Arthur Dunlap, Jr., has announced the opening of the Ruby Medical Clinic

Dr. Dunlap is a native of Charleston. He received his Bachelor of Science degree from the College of Charleston. He entered the Medical College of South Carolina, and served his internship at Roper Hospital. Upon completion of his internship he served two years with the United States Navy and was attached to the United States Marine Corp. in Korea and Camp Pendleton, California.

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Dr. R. W. Penick has opened an office at 100 S. Memminger Street for a practice limited to pediatrics, according to the Greenville County Medical Society.

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Dr. Charles N. Wyatt, Greenville, was elected president of the South Carolina Chapter of the American Academy of General Practice. He replaces Dr. Hervey W. Mead, Pendleton.

Other officers are Dr. Homer M. Eargle, Orangeburg, president-elect; Dr. I. Ripon Wilson, Charleston, vice-president; Dr. Horace M. Whitworth, Greenville, secretary-treasurer; and Dr. J. H. Cutchin, Easley, director.

The group took action toward setting up a memorial loan fund honoring the late Dr. W. L. "Buck" Pressly, Due West, who was selected by the Anderson Medical Association as the 1948 Family Doctor of the Year.

The academy plans to sponsor the self perpetuating fund. The plan discussed today would require the raising of \$5,000 from this group and also from all

doctors in South Carolina. A maximum of \$500 would be available to South Carolina students above the freshman level at the Medical College of South Carolina.

Whitten Village continues to expand in an effort to meet the public demand of applications to this state institution for the training of slow learning children.

It is today in the midst of a \$750,000 building program which is adding four new dormitories to its campus, located two miles northeast of Clinton.

And even as these buildings go up, superintendent B. O. Whitten points ahead to other pressing needs which must be met in the near future.

Three dormitories, costing a total of \$313,800 and with capacity for 200, almost are completed. The largest of these, a \$153,797 building to house 115 girls, is scheduled for occupancy the latter part of this month. Shortly thereafter, two dormitories of 40-bed capacity each will be ready for use.

The foundations have been laid, meanwhile, for a fourth dormitory. This structure will cost \$155,000 when completed and will be used to house the more emotionally disturbed male residents.

Plans also are underway to begin construction on a new fully equipped central kitchen as soon as possible and to improve dining facilities generally. These are to be included under the \$750,000 appropriation.

Such activity over the next few months will permit Whitten Village to expand its enrollment from the present 1,821 to more than 2,000. This increase will relieve most of the pressure as the institution seeks to perform its primary function of training slow learning children, some of whom are under-privileged and some emotionally disturbed, and the secondary function of providing supervision, nursing and custodial care of many who cannot do academic work.

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## BOOK REVIEWS

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*PSYCHOSOMATIC ASPECTS OF SURGERY*. Edited by Alfred J. Cantor, M. D. and Arthur N. Foxe, M. D., 215 pages. New York: Grune and Stratton, 1956. Price \$6.50.

This work consists of the major papers presented at the first Annual Teaching Seminar of the Academy of Psychosomatic Medicine, held in New York City in October, 1954. The seminar was concerned with the psychosomatic aspects of surgery, anesthesia, obstetrics and gynecology and the surgical subspecialties. Reports on those subjects were presented by authorities recognized in their respective fields. Psychiatric discussions of each of the papers were conducted by psychosomatic specialists. Such an arrangement proves to be advantageous and interesting to the reader.

Of interest was a remarkable case presented by a psychiatrist in the section on breast surgery. A mother is reported in whom a lung metastasis secondary to

recurrent breast cancer disappeared after a long quarrel with her daughter was resolved. The reviewer suspects that an area of atelectases or pulmonary infarction is more likely to clear in the interval of jubilation that followed their reunion than is an established neoplastic metastases.

Since it is often heard that the surgeon has the least psychiatric orientation of the medical specialists, the probable greater appeal of this book to the surgeon than to the psychiatrist may be well-directed. The papers presented by the surgeons indicate that psychosomatic orientation has been achieved by the well-informed surgeon. In order to expand such a process, this work is recommended to students, surgical trainees and surgeons wishing to improve this facet of their practice.

Louie B. Jenkins, M. D.

*ELECTROCARDIOGRAPHY*—by Louis Wolff, Beth Israel Hospital and Harvard Med. School. 2nd Edition—W. B. Saunders Co., Phila. Price \$7.00.

This is the second edition of a textbook that first appeared in 1950. The author reviews in some detail the fundamentals of modern electrocardiographic theory, devoting the first seventy pages to this. The various disorders commonly discussed in electrocardiograph texts are then taken up, with constant reference to the fundamental theory in explanation of changes. Some passing mention of vectorecardiographic analysis is made where it will be helpful, and a very useful section on arrhythmias has been added. In comparison to current widespread interest, the discussion of abnormal electrolyte patterns was quite brief.

John A. Boone, M. D.

*TREATMENT OF HEART DISEASE*. By Harry Gross, M. D. and Abraham Jezer, M. D. W. B. Saunders Co.—Phila.—Price \$13.00, Pp. 549.

This book reviews the mechanism of symptoms and the physiological basis of the efficacy of various forms of treatment in heart disease.

This form of presentation of therapy makes this an excellent book, especially for the general physician. It is remarkably complete and gives disadvantages and advantages of various methods of management. Also useful cardiac diets and menus are described and a valuable chapter is devoted to "Living with the Sick Heart". There are adequate illustrations to stress many points in the text. Even though the authors give many of their own ideas, yet they compare these with others and do not try to distract from other opinions.

It is a remarkable presentation of therapy and heart disease based upon sound physiological principles.

*Venous Return*. By Gerhard A. Breeher. 128 pages. New York 1956. Grune & Stratton. Price \$6.75.

This book is a comprehensive study of venous return and its relationship to cardiac outflow. It is based on measurements of venous flow, using specially devised flow meters. An interesting historical investiga-

tive background is correlated with present day research problems. The methods used to study venous flow are amply described and illustrated.

The respiratory pump, the effects of artificial respiration and heart action on venous return, and the venous hemodynamics in the normal patient as well as in those patients with cardiac valvular lesions are comprehensively presented. The discussion of venous return in open and closed heart surgery is especially applicable to the cardiac by-pass pump methods, where a balance between the aspiration of blood from the low pressure vena cava is made with the injection of blood into the high pressure arterial systems. Of the combined components which normally contribute to venous flow, i.e. the ventricular ejection, the respiratory pump, the systolic ventricular attraction, the diastolic ventricular suction, the muscle pump, and venomotor activity, all except the last are essentially abolished during open cardiac surgery using artificial pumps.

The monograph should be of interest to the laboratory investigators and clinicians alike. It is essential to the cardiologist and cardiac surgeon.

J. Manly Stallworth, M. D.

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*TEXTBOOK OF MEDICAL PHYSIOLOGY.* Arthur C. Guyton, M. D., W. B. Saunders Company. Philadelphia and London 1030 pages; 577 figures. Price \$13.50.

This is a completely new textbook treatment of physiology. The key for appreciating it is given in the first two sentences of its preface: "—— it is not a reference for physiologists. Instead, it is a textbook written for students". As such, it merits praise of several different kinds. First, for unusual clarity in presentation based upon a direct, concise literary style and upon outstandingly well chosen, clean, and informative figures. Further, treatment of the several divisions of physiology is well balanced and adequately comprehensive, at least for initial handling by medical students. In addition, there is a chapter on nuclear physics, x-rays and their relationships to the human body which constitutes coverage beyond that found in most texts.

The work is distinguished for the skill with which pathologic function is used to illustrate physiological principles and with which physiology, as the study of body processes, is brought to bear upon normal and abnormal alike. It is noteworthy, too, for its handling

of biophysical principles in relation to physiology. There are many who, recognizing the importance to medicine of numerous developments in biophysics, feel that this science should be added to the medical curriculum as a separate subject in its own right. Others, though equally impressed, oppose such isolation and feel that biophysical principles should be incorporated into the teaching of all medical subjects, wherever pertinent. Dr. Guyton's book is an excellent example of how the latter may be done and in his hands biophysics appears, rightly, as an integral part of physiology rather than as a subject apart.

On the debit side, there are features which, even though they stem directly from the effort to make a complex subject more readily understandable, will be labelled as flaws by some critics. One of these is recognized by the author himself when he states, "Unfortunately, the effort to be concise has led to more dogmatic presentation ----- than I ordinarily would have desired". The other is that, although there is a list of publications at the end of each chapter, no references whatever are made to these in the text. While this omission aids materially in achieving a publisher's ideal of a clean, uncluttered page, it may also lead to frustration for those students in whom the author may succeed in developing an inquiring attitude of mind. But despite minor flaws the major impact of the work is excellent, especially if the initially stated limitation on its objectives is kept in mind.

In a highly competitive field in which at least five major works in English are firmly entrenched already, a new textbook of physiology must present solid virtues and a real contribution to teaching technique if it is to survive. It may be anticipated that this newcomer in the field will survive and, further, be warmly welcomed by the undergraduate medical students for whom it was written and also by graduate physicians who will find its approach refreshing and helpful.

Theo. G. Bernthal, M. D.

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*DICTIONARY OF POISONS* by I. and E. Mellan. Philosophical Library, N. Y. Pp 147—Price \$4.75.

This is a book for popular use. Treatments prescribed are simple but adequate, and end generally and appropriately with the advice to "call a physician immediately". The introductory descriptions of the histories of individual poisons should be of much interest to any reader.

J.L.W.



# Nilevar\*

(BRAND OF NORETHANDROLONE)

## Searle's New and Practical Steroid Specifically for Protein Tissue Building

It has long been recognized that a substance which would promote protein anabolism would be of inestimable value in therapy. The androgens have this property, but unfortunately they also exert actions on secondary sex characteristics. These effects are commonly undesirable in therapeutic programs.

**THE FIRST STEROID WITH ANABOLIC SPECIFICITY**—Nilevar, the newest Searle Research development, therefore, meets a long desired clinical need because Nilevar presents the first steroid primarily anabolic for protein synthesis. Moreover, Nilevar is without prominent androgenic effects (only about one-sixteenth of that exerted by the androgens).

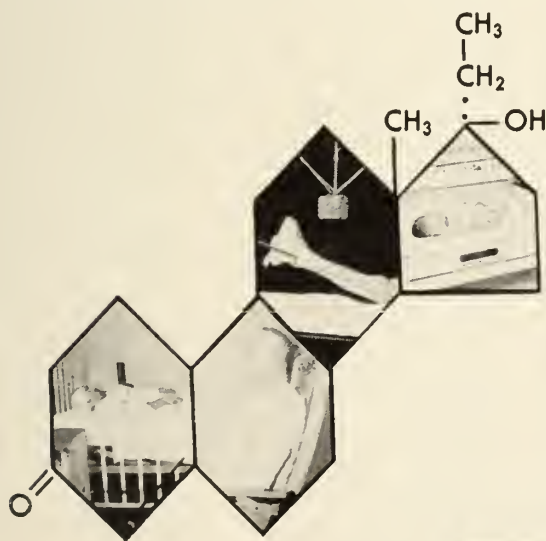
**OBJECTIVE AND SUBJECTIVE RESPONSE**—Orally effective. Nilevar therapy is characterized by retention of nitrogen, potassium, phosphorus and other electrolytes in ratios indicative of protein anabolism. Moreover, subjectively the patient observes an increase in appetite and sense of well-being.

**WELL TOLERATED**—Nilevar has an extremely low toxicity. Laboratory animals fail to show toxic effects after six months of continuous administration of high dosages. Nilevar should not be administered to patients with prostatic carcinoma. Nausea or edema may be encountered infrequently. Slight androgenicity may be evidenced on high dosage or in particularly responsive individuals.

**MAJOR INDICATIONS**—Preparation for and recovery from surgery; supportive treatment of serious illnesses (pneumonia, poliomyelitis, carcinomatosis, tuberculosis); recovery from severe trauma and burns; decubitus ulcers; care of premature infants.

**DOSAGE**—The daily *adult* dose is three to five Nilevar tablets (30 to 50 mg.) but up to 100 mg. may be administered. For *children* the average daily dose is 1 to 1.5 mg. per kilogram of body weight; individual dosages depend on need and response to therapy.

**SUPPLY**—Nilevar is available in uncoated, unscored tablets of 10 mg. G. D. Searle & Co., Research in the Service of Medicine.



SEARLE

\*Trademark of G. D. Searle &amp; Co.



*Left to Right: Dr. William H. Prioleau, President, S. C. Medical Association, who was speaker at the Fall Executive Board Luncheon of the Woman's Auxiliary in Newberry, September 12, Mrs. E. Gordon Able, President of the Woman's Adxiliary to the S. C. M. A.; Dr. D. L. Smith, President-Elect of the S. C. Medical Association and Mrs. Smith who were guests at the Luncheon.*

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## WOMAN'S AUXILIARY

### SOUTH CAROLINA MEDICAL ASSOCIATION

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President: Mrs. E. Gordon Able, Newberry, S. C.

Bulletin Secretary: Mrs. Ritchie Belser, Charleston, S. C.

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#### PRESIDENT OF S.C.M.A. SPEAKS TO WOMAN'S AUXILIARY BOARD

Members of the Woman's Auxiliary to the South Carolina Medical Association attending the fall Board Meeting of their organization in Newberry, on September 12th, heard as guest speaker Dr. William H. Prioleau, president of the South Carolina Medical Association. Also attending the meeting as guests of the Auxiliary were Dr. and Mrs. D. L. Smith of Spartanburg. Dr. Smith is president-elect of the S. C. Medical Association.

Dr. Prioleau's talk was keyed directly to wives of physicians. He said "Wives of physicians live medicine day in and day out. This Auxiliary is an indication of their interest in it. Its chief purpose is to help them direct their efforts to the benefit of medicine and the public. While you do not practice medicine and are not in the foreground, as wives of physicians, you exert a great influence upon medical affairs. As individuals, and as a group, you can serve best by taking an interest in the solution of social and economic problems so important to the satisfactory practice of medicine. The science of medicine has made great strides and it is now necessary that we pay more attention to the distribution of medical services. If we fail, the government will step in and the changes may not be to the public welfare or to our liking.

A busy physician is inclined to devote his reading

time to the science of medicine and to pay little attention to the articles dealing with social and economic aspects of the practice. The wife of a physician can help her husband and at the same time do a public service by familiarizing herself with these problems by reading in the lay and professional press. Among the problems are: 1. Advantages to physician and patient of service benefit insurance, such as Blue Cross and Blue Shield, 2. Medical care of military dependents, 3. Medical colleges in the private practice of medicine, 4. Hospital privileges for general practitioners, 5. Federal aid to medical schools, 6. Medical care for veterans with non-service connected disabilities, and many others.

In women's gatherings talk is generally free and often pointed. As women, you are blessed with a keen intuition and can often sense problems and situations before your physicians husband is aware of them. If you are conversant with the subject you can help your husband to a better understanding. As wives of physicians you speak not officially but with authority and you are in a position to use your influence to a great advantage. You are in an unusually favorable position to help solve the social and economic problems which affect the practice of medicine today."

Dr. Prioleau concluded by urging a large attendance from the Auxiliary at the Medical Association Convention in Myrtle Beach in 1957.

# The Journal

of the

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### THE TREATMENT OF ARTERIAL OCCLUSION IN THE LIMBS

WILLIAM T. FOLEY, M.D., F.A.C.P.\*

In recent years arterial surgery has improved greatly. Arterial grafts from artery banks can satisfactorily replace parts of the aorta. Occlusive lesions in the iliac and femoral arteries have been bypassed successfully. Different methods and materials have been used. These include vein grafts, artery grafts and prosthetic tubes made of woven plastics. Endarterectomy has been developed. This consists of removing the diseased intima of a clogged vessel and cleaning out the atherosclerotic plaques and thrombi.

Enthusiasm for these surgical procedures has mounted. Current meetings and literature are replete with papers on these subjects. The authors invariably have the point of view that conservative management of most such patients is of no avail.

At this time it would seem wise to review the natural history of these arterial diseases. What can be accomplished by conservative measures? In what types of cases is surgery definitely indicated? Where is the place for conservative therapy?

This is a very controversial subject. The discussion below is presented in the didactic form used in the author's clinic. Space does not permit a detailed review of the "pros and cons" of each issue.

#### ACUTE ARTERIAL OCCLUSION

Arterial occlusion may be caused by a great number of pathological states. However, the majority are accounted for by thrombosis over an arteriosclerotic plaque, embolization from a fibrillating or infarcted heart or thrombosis from the inflammation of thromboangiitis obliterans.

*Diagnostic Signs.*—The diagnostic signs of a limb with acute arterial occlusion are extreme pallor on elevation, cyanosis at a horizontal level in the early stages, coolness of the affected area, absent or greatly diminished peripheral arterial pulses and oscillometric readings. Pain and numbness are usually present. The oscillometer is especially valuable in indicating the level at which the obstruction exists. Pulses occluded or diminished by vasospasm may be released of this spasm by sublingual trinitrate given as a diagnostic test.<sup>1</sup>

*Physiological Changes (Fig. 1).*—Following the formation of the clot or the lodgement of the embolus, a powerful vasoconstrictor agent is liberated from the thrombus. This has been named "serotonin" by Rapport, Green and Page.<sup>2</sup> It produces a spasm of the affected vessel and the adjacent collaterals.

The thrombus has a tendency to propagate itself down the vessel in the direction of the pressure gradient. Blood flow through the spastic collateral vessels becomes very sluggish. There is a tendency for sluggish blood to clot in veins (phlebothrombosis) and in the capillary beds (thrombosis in situ).

\*Assistant Professor of Clinical Medicine and Chief of the Vascular Clinic, New York Hospital—Cornell Medical Center.

(read at the Annual Meeting of the South Carolina Medical Association, Myrtle Beach, S. C., May 1956) The author acknowledges the assistance of the Eaton Laboratories, Mrs. Samuel Milbank, Mrs. Frank Corbett, and Mr. Isaac Harter in supporting this work.

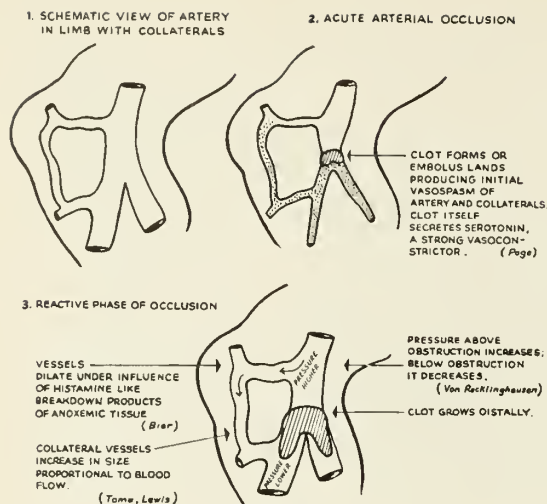


Figure 1

**Adaptive Mechanisms.**—To counterbalance the arterial occlusion and vasospasm of collaterals several opposing mechanisms are developed. Von Recklinghausen<sup>3</sup> in 1883 pointed out that the blood pressure rose above an area of arterial blockage and below this site it fell. This produces a pressure gradient which promotes the efficiency of collateral flow.

Bier<sup>4</sup> in 1897, demonstrated that in an area with reduced arterial blood flow catabolic products accumulate. These breakdown products have a profound vasodilator or histamine-like action. They overcome the vasoconstrictor action of serotonin and result in a marked dilatation of collateral vessels.

Thoma<sup>5</sup> in 1884, showed that the growth of collateral channels is proportional to blood flow through them. Lewis<sup>6</sup> in 1940 in a review of all the experimental data concerning collateral flow concluded that "The essence of the matter seems to be that there is a local call by tissues in need and that to this call there is a local and adequate response."

**Treatment.**—Successful management depends on the knowledge of the above physiological data and the application of hygienic measures to aid the natural adaptive mechanisms. Great attention to even minute detail is necessary.<sup>7</sup>

1. **Direct Surgery.**—In the case of sudden embolization, if expert vascular surgery is available, less than 8 hours have transpired

and the general condition of the patient will tolerate it, embolectomy is the treatment of choice if the obstruction is at the bifurcation of the aorta, the iliac artery or femoral artery down to the popliteal area. Popliteal emboli and those distal to it do better without surgery. It is now considered wise to recommend anticoagulant therapy during the postoperative course.

The use of arterial grafts has made surgical intervention much more useful. Large grafts replacing the abdominal aorta from below the renal arteries and extending to include the iliacs and parts of the femorals have been successfully used. They find their greatest value in the resection of aneurysms and vessels infiltrated with tumor. The vessel above and below the site of the graft must be healthy and patent for this procedure to be of maximum value. It has been greatly limited by the difficulty in obtaining suitable grafts. The recent development of plastic materials is very promising and may overcome this problem.

2. **The use of Gravity.**—To aid the flow of blood down collateral channels the affected limb must be kept below heart level. This may be accomplished by elevating the head of the bed on blocks. The common error of raising the involved limb on a pillow is to be deplored. Alternately filling the limb with blood by making it dependent and then draining it by elevating it slightly can be conveniently accomplished by the oscillating bed of which several types are available. The bed must be regulated to suit each case. The aim should be to obtain just enough elevation on the upswing to drain the veins but not to maintain it long enough to produce marked pallor. The down swing should give ample gravity-pressure flow to produce rubor if possible without reaching an angle uncomfortable to the patient.

3. **Vasodilation.**—Collateral vessels are very sensitive to environmental changes both chemical and physical. Slight chilling can cause extreme vasoconstriction. Proper warmth produces dilatation of the arterial tree.

(a) **Avoidance of Tobacco.**—The use of tobacco in any form produces profound vasoconstriction. Some patients are much more

sensitive to this than others. Even a single puff of a cigarette may cause measurable vasospasm. Complete abstinence from tobacco is a "sine qua non" for successful therapy. In addition to acting as a vasoconstricting agent in thromboangiitis obliterans there is evidence to show that the acute inflammation, which is the characteristic pathogenic feature of the disease, may be due to a peculiar idiosyncrasy to tobacco.

(b) *Warmth*.—Heat should never be applied to an area with decreased arterial flow. However, when the area proximal to it is warmed, a reflex vasodilatation may follow. For example, if the popliteal artery is occluded, a heating pad may be placed on the abdomen or groin.

(c) *Drugs*: 1. *Systemic*.—The use of general vasodilators such as alcohol, nicotinic acid derivatives, hexamethonium compounds, priscolline, regitine, tetraethyl ammonium halides, ilidar, arlidin, etc., has the great disadvantage of increasing the capillary bed in many areas as well as in the affected area where this effect is alone desired. The net result is sometimes to decrease blood flow to the limb where it is most needed. Some of these agents also open up the numerous arteriovenous shunts in the limb and divert blood flow from the tissues to this by-pass system, again reducing flow where it is wanted. In our hands sublingual glyceryl trinitrate in a dose of 0.0004 gm. has given the maximum degree of dilatation of large and small arteries for periods of 1 to 2 hours. Except in cases of occlusion by spasm of the major arteries one should not expect a warming of the skin by this drug.

2. *Intraarterial*.—Repeated injections into an artery traumatize it. Reflex spasm of severe degree is sometimes produced. We have therefore abandoned this type of therapy.

#### (d) *Nerve Blocks*

The most effective method for releasing vasospasm in the legs is the injection of procaine into the lumbar sympathetic ganglia. It is a very useful procedure and frequently is effective for periods up to 8 hours. The results are not as good when this technique is applied to the upper extremities. Deep injections such

as these must not be given if the patient is receiving anticoagulants because of danger of hemorrhage. This procedure has the disadvantage of opening up arteriovenous shunts high up in the limb and at times reduces blood flow to the tissues. Surface flow to the skin is usually increased.

#### (e) *Sympathectomy*

Rarely, sympathectomy<sup>8</sup> may be resorted to in acute occlusion. It has the effect of long lasting sympathetic block but the disadvantage of subjecting an often severely ill patient to a major procedure.

#### (f) *Induced Fever*

General vasodilatation occurs in fever. This may be induced by intravenous injection of typhoid vaccine. An initial dose of 5 million organisms is used, increasing by 3 to 5 million organisms with each dose. The aim is to produce a slight fever without a chill. This form of therapy is most helpful in cases of thromboangiitis obliterans with marked vasospasm.

4. *Maintenance of Tissue Viability*.—While the limb with major arterial insufficiency is awaiting the development of collateral flow, the tissue in jeopardy must be protected against maceration, infection, dehydration and thermal damage. It is unwise to speed its metabolic rate by the application of external heat. The increased oxygen need cannot be met and the tissues die. On the other hand, cooling is apt to produce vasoconstriction and decreased blood flow. In general, the affected limb should be kept in an environment of 70° to 88° F. Wet compresses are contraindicated because of their tendency toward cooling and the heat loss by evaporation further chills the part. Gently coating the limb with an inert fat and then wrapping it loosely with cotton wool will help maintain an ideal environment and protect against maceration.

Cold or ice are applied only when it has been decided to amputate. When so used they relieve pain, reduce absorption from an infected area, and allow time for the patient to be prepared satisfactorily for the operation.

5. *Anticoagulants*.—In patients with embolization as, for example, from a heart in auricular fibrillation, anticoagulants are particular-

ly useful in preventing further emboli. They also aid in prevention of extension of thromboses. During the period of greatly reduced blood flow in the affected limb, thrombosis "in situ" in the capillary bed and small vessels, together with thromboses in the veins, is a constantly feared phenomenon. Adequate anti-coagulant administration will help combat this tendency.

6. *Exercise*.—Above, under the heading of "Adaptive Mechanism", it was pointed out that collateral vessels develop in size and efficiency proportional to the rate of blood flow. The greatest stimulus to blood flow is the use of muscles. Weight bearing should be encouraged as soon as the tissue viability will tolerate it.<sup>10</sup> Patients should walk very slowly, slow enough so that intermittent claudication is not produced. Of course, mobilization can not be permitted during the stage where massive gangrene is threatened. As soon as this phase is passed, we encourage walking even with gangrenous toes or ulcers present.

7. *General Measures*.—Supportive measures should not be overlooked in the focusing of attention on the threatened limb. Problems associated with serious underlying disease such as polycythemia, old rheumatic heart disease, myocardial infarction or diabetes mellitus should be treated appropriately.

## II. Chronic Arterial Insufficiency

If the limb survives the acute occlusion, a chronic state of arterial insufficiency often follows. Closure of an artery may also be very gradual. The patient may have then developed intermittent claudication, necrotic ulcers or gangrene.

### Treatment

1. *Exercise*.—In the chronic stage, exercise is the chief modality to encourage blood flow and develop collateral vessels. Long walks are most desirable. Walking should be at a slow enough pace to avoid claudication. When pain does develop, the patient must pause and allow it to depart before resuming walking. Patients who could walk only a few paces have been able to increase their walking distance up to several miles.

2. *The Use of Gravity*.—The patient should sleep with the head of his bed elevated or, if possible, use an oscillating bed.

### 3. *Vasodilation*.—

(a) Avoidance of tobacco (see above).

(b) *Warmth*.—In addition to reflex heat mentioned above, if open lesions are not present, the ambulant patient may take warm Sitz baths daily with the water at 98° F. for 30 minutes.

4. *Drugs*.—If the skin lesions are present, vasodilators which shunt the blood to the skin circulation may be of value. Alcoholic beverages are probably as effective as other means and well accepted by people of middle age and beyond. To aid in dilatation of the large arteries we instruct the patient to lie down for an hour and place a heating pad over the lower part of the abdomen. At the same time he takes a hypo tablet of glyceryltri-nitrate under his tongue. This procedure is carried out once each evening.

5. *Anticoagulant Therapy*.—Long term anti-coagulant therapy is of special value in patients with rheumatic heart disease who throw off emboli from their fibrillating auricles. In a group of such patients whom we have followed from one to eight years we have been able to prevent the recurrence of such embolization.<sup>9</sup>

6. *Sympathectomy*.—The value of sympathectomy in the chronic stage is controversial. It gives best results in patients with increased vasomotor tone who have skin ulcerations. Increased blood flow to the muscles should not be expected from the operation. In patients with normal or decreased vasomotor tone, it may result in a decreased total blood flow to the affected limb. We reserve sympathectomy for patients who have not done well on the conservative regimen outlined above, including the absolute prohibition of tobacco. In general, the results in such cases are not striking; in fact, they are frequently very disappointing.

7. *Care of Ulcers*.—Necrotic ulcers must be cared for with great gentleness. Debridement should be done minutely and at many sittings. Amputation of necrotic toes often leaves a non-healing stump. Hot soaks must be strictly avoided for reasons given above. The temperature of saline soaks used daily should be from 90° to 95° F. Wet dressings are too cooling. Strong chemicals only add to the necrosis. Mild

antimicrobial ointments with a wide spectrum are best. Furacin soluble dressing is excellent if the physician is alert to skin sensitization.

8. *General Hygiene.*—The patient must avoid chilling. In cold weather he should wear heavy underwear and stadium boots. He should be cautioned never to put heat in any form (including diathermy) on the involved limb (see #4 under acute occlusion). He must not take vasoconstrictor drugs such as epinephrine, ephedrine, benzedrine or ergot derivatives. He should always keep the affected limb below heart level. If he has intermittent claudication he should keep his walking at a slow rate below the point of pain. If pain occurs he should stop until it disappears.

*Prognosis*

The outlook for patients with chronic arterial occlusive disease is much better than commonly accepted by the medical profession, provided that they are persistent in their adherence to the regimen outlined above. This may mean a matter of years rather than weeks and the patient must be oriented regarding the long range approach to his problem at an early visit. Many patients with major occlusions, even of as large a vessel as the lower abdominal aorta, have been restored to a full life. Many are able to walk long distances at a slow pace, resume full laborious activity and sports such as golf.

*Summary*

If a sound knowledge of physiological principles is applied, nature provides many adaptive measures to produce collateral blood flow. Walking long continuous distances at a slow enough pace so that pain does not arise, is the most helpful procedure of all. Tobacco must be strictly avoided. Gravity must be utilized to aid blood flow, not hinder it by elevation of the foot. Warmth must similarly be employed with discretion. Vasodilating drugs on the whole, are not very helpful, often harmful.

Surgical procedures are mandatory for invading tumors and for aneurysms. In a very early case of embolism, surgery is to be preferred to conservative management at the level of the mid-femoral artery and above.

Surgical procedures are unnecessary in thromboangiitis obliterans. It is controversial whether they are to be of value in arteriosclerotic lesions. On the whole, conservative management gives good results in these cases. As experience accumulates a more definitive answer can be given.

After surgery, the patient should be given the benefit of the same sound, physiological management used for medical cases.

*Case Histories*

*Case 1.*

*Sudden Occlusion of Lower Abdominal Aorta, Arteriosclerosis Obliterans and Hypertension*

Mr. A. P. is a 58 year old watchman. He has been employed at New York Hospital for many years and had enjoyed good health up to the time of this episode except for a symptomless hypertension. One cold winter's day, while on duty outside the hospital entrance he suddenly experienced intense pain in his back. His legs became numb and cold. He had great difficulty walking. He reported to the emergency clinic and was sent to vascular clinic by wheelchair.

On examination he was found to be acutely ill. In a horizontal position, his legs and feet were white and cold. In dependency, a cyanotic rubor developed. Pulses and oscillometric readings were as follows:—

	Right	Left
Femoral Pulse	0	0
Popliteal Pulse	0	0
Dorsalis Pedis	0	0
Posterior Tibial	0	0
Oscillometric Readings		
Foot	0	0
Ankle	0	0
Calf	0	0
Thigh	0.2	0.2
Elevation Pallor	4+	4+
Dependent Rubor	4+	4+

He was admitted at once. He was placed on an oscillating bed. It was set at 0° upswing owing to the marked pallor when the feet were raised above this level. He was given a down swing of 15°.

Tobacco was interdicted. He had smoked 40 to 60 cigarettes daily. It required a supreme effort of will power to give up this addiction, but he succeeded. He has not resumed the use of tobacco during the six years he has been followed.

Reflex heat, in the form of a heating pad to the groin, was applied on alternate hours. Alcoholic beverages were encouraged, Sublingual nitroglycerine was given twice daily, later once daily.

Ambulation was urged as soon as pain would allow it.

X-ray studies were made. A lateral view of the lower abdomen revealed a calcified plaque in the lower abdominal aorta (Figure 2.) Contrast media



Figure 2

were injected into the aorta (Figure 3.); this showed a block at the bifurcation of the aorta, a narrowed channel in the right iliac and great development of collateral vessels.



Figure 3

His walking distance slowly increased until he was able to have bathroom privileges. He returned to work. This required eight hours a day, on his feet. He was instructed to protect himself against chilling. In the winter he wears heavy underwear, wool socks and stadium boots. He has been cautioned to avoid heat to his feet.

Six years have gone by. He walks two to three continuous miles, slowly, each day. The collateral blood flow in his legs has increased enormously, as evidenced by the texture and warmth of his skin. His oseillometric readings are now:—

	Right	Left
Foot	0.1	0.1
Ankle	0.4	0.8
Calf	0.6	0.8
Thigh	0.8	1.0

His arteriosclerosis obliterans and hypertension has progressed, however. His right ulnar artery is not palpable and the radial is weak. His left braechial is partly occluded. However, the collateral flow is so good that he is symptom free in his arms.

Case 2.

*Sudden Aortic Occlusion, Arteriosclerosis Obliterans, (Figure 4.)*

Mrs. M. is a housewife who was only 35 years of age at the time of the episode to be described.

She had enjoyed excellent health. She was a proficient athlete and vigorous golfer. Her menstrual pattern was normal in every respect.

One day, while playing golf, she started to walk up a hill. Suddenly her legs would not hold her up. She experienced sharp pain in her back and thighs. She fell to the ground. Subsequently she was removed to a hospital.

On examination her legs were cold and pulseless. Oseillometrie readings and pulses were as follows:—

	Right	Left
Femoral Pulse	0	0
Popliteal Pulse	0	0
Dorsalis Pedis	0	0
Posterior Tibial	0	0
Oseillometric Readings		
Foot	0	0
Ankle	0	0
Calf	0	0
Thigh	0.1	0.2
Elevation Pallor	4+	4+
Dependent Rubor	4+	4+

She was placed in an oseillating bed with a 5° upswing and 15° downswing. Tobaeo was interdicted, with difficulty but successsfully. Reflex heat in the form of a heat pad to the abdomen was applied at alternate hours. She was cautioned against applying



Figure 4

heat to her feet. Walking was commenced. At first it was painful to even bear weight, but soon she was able to take a few steps each hour.

A roentgenogram of the abdomen (Figure 4.) showed an extensive calcified plaque in the lower abdominal aorta. This undoubtedly was the site of a mural thrombus completely obstructing the aorta.

Studies of calcium and phosphorus metabolism were normal. A complete endocrine study was normal. Blood cholesterol was 195.

*Clinical Effects of Azapetine (Ildar) on Peripheral Arterial Disease.* J. M. Stallworth and J. V. Jeffords. J.A.M.A. 161:840-843, June 30, 1956.

Over a period of eighteen months 52 patients with peripheral arterial disease were treated with azapetine by both the oral and intravenous routes. The oral dosage was 75 or 100 mg. per day; the intravenous dosage was 1 mg. of azapetine per kg. of body weight in 250 ml. of saline solution injected slowly over a 30 minute period. Improvement of circulation in the extremities was in direct proportion to the amount of vasospasm present, and was manifested not only in alleviation of symptoms, but also in the results of

She left the hospital after two weeks. At home she gradually increased her walking distance. In one year she was able to resume golf. She is now able to walk any distance at a moderate pace.

The acute occlusion occurred in 1948. She has been followed carefully during the 8 intervening years. The only illness that is worth noting is hyperthyroidism which developed in 1951 and which responded well to sub-total thyroidectomy.

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oscillometric readings, skin temperature recordings, and reflex skin temperature changes after warming and cooling the extremities.

Azapetine is a potent arterial vasodilator with few side reactions. Intravenous injections produced immediate vasodilatation and improvement of symptoms in 7 of 10 patients. This test is believed to be reliable in determining whether or not patients will be appreciably improved by the administration of Ildar. The pattern of response to Ildar, administered orally or intravenously, correlated closely with the clinical response following sympathectomy in the same group of patients.

# METASTATIC CHONDROSARCOMA TO THE LIP

## A CASE REPORT

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KENNETH PICKRELL, M. D.

Chondrosarcoma is a relatively rare disease. Its characteristics, pathology and clinical diagnosis have been described by Phemister,<sup>1</sup> Morton and Mider,<sup>2</sup> O'Neal and Aekerman<sup>3</sup> and Lichtenstein and Jaffe.<sup>4</sup> Roberg<sup>5</sup> demonstrated the relation of structure and location of the primary tumor to the clinical course. He also described a primary chondrosarcoma of the mandible. Two cases of chondrosarcoma of the tibia which metastasized to the mandible were reported by Goldstein and Goldstein<sup>6</sup> and Robinson.<sup>7</sup>

However, relatively little has been written regarding the extra-pulmonary sites of tumor metastasis. A review of the literature for the past twenty years has disclosed only one case in which metastatic chondrosarcoma involved the body surface. This case was reported by Cruickshank<sup>8</sup> in 1945 who described facial cutaneous metastatic chondrosarcoma from a primary lesion of the phalanx of the middle-finger of the left hand. The primary lesion had been removed two years previously.



Figure 1.—Showing the extent of the tumor on admission. The tumor extended from the knee to the gluteal fold.

We present a case of chondrosarcoma of the

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Figure 2.—Showing firm, painless nodules of the right lower lip.

femur which metastasized to the lungs and the lower lip. (fig. 2).

The patient is a 52 year old colored female who dated the onset of her trouble to the age of ten years at which time she fell from a wagon and struck the lateral surface of her right knee. She noticed the appearance of a mass at the site of injury which increased to the size of her fist. The patient could not remember about any associated symptoms.

Twelve years prior to the present admission, at 40 years, the mass had increased to such a size that the patient was unable to walk without crutches.

At age 44 years, she had a spontaneous fracture of the right leg washing dishes.

She was admitted to Duke Hospital at that time where examination revealed a hard mass of the right femur extending from just below the knee to the gluteal fold (fig. 1) and measuring 55 inches at its greatest girth. There was a painless fracture of the upper part of the tibia on the right. After complete evaluation, a right hemipelvectomy was performed on

August 19, 1948. Her postoperative course was uneventful and she was discharged to be followed in clinic. Pathologic examination of the 49 pound specimen revealed "chondrosarcoma, femur, arising from exostosis." There was metastasis to the iliac lymph nodes.

She had been seen at regular intervals and had adjusted remarkably well to crutch ambulation. However, on October 13, 1953, she coughed up a small amount of bright red blood. Chest roentgenogram at that time revealed multiple metastatic lesions of the right lung. Chest pain had been minimal and her general condition remained good.

On December 21, 1954 it was noted that she had three submucosal, firm, non-tender nodules of the right side of the lower lip (fig. 2). These were excised on February 26, 1955. The microscopic examination showed "chondrosarcoma metastatic to the lip" (fig. 3). Since operation, the wounds have healed by primary intention and the patient continues to do well.

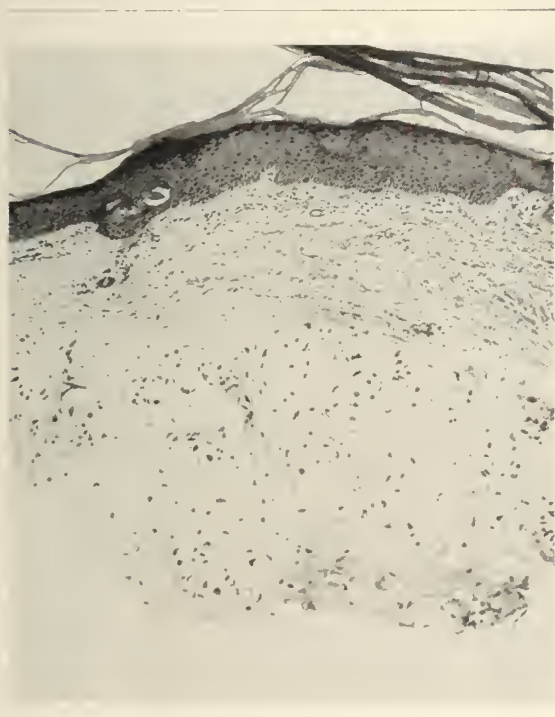


Figure 3.—Microphotograph showing the presence of metastatic chondrosarcoma in lower lip nodule, (X64).

## Discussion

As pointed out by Lichtenstein and Jaffe<sup>5</sup> and Roberg<sup>4</sup> and others, it is extremely difficult to make a diagnosis of metastatic chondrosarcoma from microscopic examination of the metastatic tumor alone. It is often necessary to cut multiple sections of the specimen before cartilage cells meeting the criteria of malignancy can be found. Also to be considered, as pointed out by Willis<sup>9</sup> is the fact that soft tissues can and do undergo benign cartilaginous metaplasia. However, we have been unable to find any record of this phenomenon in the lip although it has been observed in the salivary glands and pharynx.<sup>9</sup>

The presence of a firm, non-tender nodule in the lip of a patient who is known to have chondrosarcoma in the lung, would certainly lead one to suspect the presence of metastatic tumor in the lip. Other causes for such lip lesions would be trauma, inclusion cysts, hemangioma or possibly a benign dermal fibroma.

## Summary

A case of chondrosarcoma of the femur which had metastasized to the lower lip is presented. This is the first case so reported in the medical literature.

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# PULMONARY INSUFFICIENCY WITH SPECIFIC REFERENCE TO CHRONIC COR PULMONALE

## A REVIEW

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The term "cor pulmonale" is usually applied to those cases of pulmonary hypertension based on disease of the lungs or pulmonary arteries. Exact definition depends upon whether one is making an anatomical diagnosis or a clinical diagnosis during life. In the former instance the criterion for diagnosis is right ventricular hypertrophy (right ventricular wall thicker than 0.5 cm. average) in the presence of severe pulmonary, arterial or lung disease where other causes of right sided heart failure are absent. In the latter instance the criterion for diagnosis is right sided failure in the absence of causes of right sided failure other than pulmonary arterial or lung disease.

Actually, cor pulmonale should be considered as a dynamic state of affairs involving the right side of the heart, ranging from an initial increase in pulmonary artery pressure to frank ventricular hypertrophy and eventual failure.

The incidence of cor pulmonale ranges in the neighborhood of .5% when considered from an anatomical standpoint. Scott and Garvin<sup>1</sup> reported 50 cases in a series of 6,548 autopsies, an incidence of .77%, or 6.3% of 890 cases involving heart disease.

### *Etiology:*

Carroll<sup>2</sup> has probably done the most succinct job of etiological classification to date. There are two bases considered: one according to the site of pulmonary vascular obstruction (main pulmonary artery, as by aortic aneurysm, large pulmonary arterial branches, as by pulmonary emboli, pulmonary arterioles, as by carcinomatosis, and pulmonary capillaries as by emphysema and infection), the other according to disease process, (emphysema, infection, obstructive lesions, pulmonary arteries, mixed lesions and pulmonary carcinomatosis). The most common causes of chronic cor pulmonale are emphysema, asthma, and bron-

chiectasis, which commonly appear in combination with each other.

The group of cases mentioned in this paper is mentioned only as a general illustrative background. The series is not large enough nor the findings well documented enough to attempt to draw any statistical conclusions. In this series nine cases have an etiology proven by autopsy. Of these, emphysema was found in one, emphysema and pulmonary fibrosis secondary to tuberculosis in four, anthracosilicosis in one, pulmonary fibrosis in two and silico-tuberculosis in one.

### *Clinical Features and Accessory Clinical Findings:*

The 21 cases forming the bases of our observations comprised all patients admitted to the Baltimore City Hospitals over a period of three years in whom the clinical diagnosis of cor pulmonale was made, with one additional case seen and followed in detail by us in whom the clinical diagnosis of cor pulmonale was completely tenable. Of these, 12 cases when carefully reviewed, fit the criterion for clinical or pathological diagnosis of cor pulmonale mentioned previously. The remaining cases showed definite features of pulmonary insufficiency but not enough evidence of right heart failure on a pulmonary basis, nor pathological evidence of right ventricular hypertrophy on a pulmonary basis to make cor pulmonale a tenable diagnosis. Ages in this entire group range from 31 to 86. Sixteen of the patients were white male, three colored male, two white female and one colored female.

Ten cases of the series had a definite diagnosis of pulmonary tuberculosis. This is an interesting contrast to the series of 60 cases of cor pulmonale, studied by Spain and Handler<sup>3</sup> in which only two cases of tuberculosis were found.

All cases of cor pulmonale gave a history of

chronic progressive respiratory disease present for at least one year and in most cases for many years. Signs of respiratory insufficiency had been present from one month to many years.

#### *Physical Findings:*

In evaluating the patient with cardio-pulmonary disease, certain features will be of much help in establishing the diagnosis of cor pulmonale and in differentiating these cases from those whose symptoms are on a purely respiratory basis, and equally important in the differentiation of respiratory disease from pulmonary congestion due to left ventricular failure. Careful and critical examination of the patient will yield many clues. The presence of obvious pulmonary disease prior to the onset of ventilatory insufficiency is of course extremely helpful. The presence of obvious pulmonary emphysema with the barrel chest, fixed in expiratory attitude, with diaphragmatic breathing, makes many cases obvious as far as the possible presence of pulmonary insufficiency is concerned. Concomitant flattening of the domes of the diaphragm may be most easily detected on fluoroscopy of the chest, and where this phenomenon is present in a fairly marked degree, may have a definite significance from a therapeutic standpoint as noted below.

A study relative to the effect of exercise on cardiac output in normal cardiovascular and emphysematous patients by Hickam and Cargill<sup>4</sup> revealed an initially elevated pulmonary artery pressure in emphysematous patients and further substantial increase with exercise. These factors form the basis of the clinical finding of an accentuated second pulmonic sound, particularly after exercise, in the chronic respiratory and cor pulmonale patients. Actually in our group only five patients had been noted to show this finding. This probably represents a failure in clinical observation on the part of some of the persons examining the patients. The amount of emphysema present may preclude correct judgement as to the intensity of  $P_2$ .

#### *Hematological Findings:*

Carroll<sup>2</sup> states that polycythemia was rarely present in the cases of cor pulmonale observed

by him. In our entire series including both cor pulmonale and pulmonary insufficiency, polycythemia as determined by hematocrit reading was present in eight and very markedly so (with hematocrit readings above 55%) in two.

#### *Ventilatory Function:*

The most reliable single test of ventilatory function is the measurement of maximum minute ventilation. This test, however, is too time consuming for routine office use and for the most part the measurement of vital capacity may be substituted. This is a fundamental but static measurement and has the same defect as systolic stroke volume as compared to cardiac output in measuring cardiac function. Vital capacity is not a particularly valuable tool in differentiating pulmonary from primary cardiac failure, since it is impaired early in primary left sided failure. It is of more value in following the course of a single person.

The measurement of resting vital capacity both before and after the establishment of definitive treatment was carried out in seven of our patients. Five of these showed a significant increase in the value. In the determination of vital capacity several small instruments are available on the market for routine office use. Also available is an attachment for the measurement of expiratory rate, an important factor in dealing with emphysematous patients.

#### *Cardiac Findings:*

Of the 12 patients with chronic cor pulmonale the venous pressure (cubital vein) was measured in five, values ranging from 150 to 350 mm. being obtained. Venous pressure should be measured in all cases as an aid in determining whether or not congestive heart failure is present and whether digitalization is indicated.

One of the most useful tools in the diagnosis of cardio-pulmonary disease is the ECG, particularly as a differential aid in patients who may be suffering from primary cardiovascular disease. Miller<sup>5</sup> found evidence of right axis deviation in all of his asthmatic emphysematous patients with evolving right-sided failure and in none of the asthmatic patients with primary cardiovascular disease. The ECG changes of chronic cor pulmonale are those of right ventricular hypertrophy. The

changes of right axis deviation, T wave abnormalities and a pattern consisting chiefly of deep S waves in the three standard leads are extremely unreliable as diagnostic signs and the fallacy of basing a diagnosis of right ventricular hypertrophy solely on standard extremity leads is recognized. The unipolar technique permits a valid justification for ECG diagnosis of right ventricular enlargement. The diagnostic signs include an increase in amplitude of those deflections produced by right ventricular forces, (e.g. R  $v_1$ ) and increase in amplitude of those deflections produced by left ventricular forces (e.g. R  $v_6$ ), a QR complex in aVR, depression of ST  $v_1$  and inversion of T $v_1$ . Also present is a delayed onset of the intrinsicoid deflection over the right ventricle.

Alexander et al<sup>6</sup> found a prolongation of the QT interval in 14 cases of primary organic heart disease in failure and no prolongation in 13 cases of chronic cor pulmonale. They suggested that these measurements might be a diagnostic tool. The reasonable explanation of this finding is the fact that even with hypertrophy the thickness of the right ventricle does not exceed that of the left.

In our group of cases with proven chronic cor pulmonale unequivocal evidence of right ventricular hypertrophy (chronic cor pulmonale pattern) was present in 7 cases. Right heart strain was present in two, left heart strain in one and the ECG was not done in two. Of the 10 cases of chronic pulmonary insufficiency, 9 had tracings done and only one showed a suggestive right ventricular hypertrophy pattern.

#### *Treatment:*

Treatment of pulmonary insufficiency in cor pulmonale divides itself into two aspects, the treatment of the pulmonary aspect and the treatment of the cardiac aspect, the latter in many respects being modified by the former.

The aspect of therapy which is probably the most common site of therapeutic error is the injudicious use of oxygen in patients with chronic and acute respiratory failure. The signs of ventilatory insufficiency include cyanosis, and one of the findings is a lowered arterial blood oxygen saturation. These findings suggest the immediate use of oxygen. In the pres-

ence of severe emphysema, particularly, better alveolar ventilation must be promoted. The prolonged use of oxygen must, however, be avoided because this promotes hypo-ventilation, apparently through its effect on the respiratory center which has become more dependent than normal upon low arterial oxygen saturation as a stimulus. Stone et al<sup>7</sup> described the production of respiratory acidosis and mental confusion by short periods of oxygen therapy, in a small series of cases under treatment for severe respiratory failure. Carroll<sup>2</sup> cites two cases in which the correct diagnosis of cor pulmonale was made only after severe hypoventilation had been precipitated by injudicious use of oxygen and morphine. In our series, oxygen was used by mask or tent on an intermittent basis in four cases and constantly for six days in one other. It is extremely interesting that in the patients in whom the oxygen therapy was used constantly, the average survival time was two days following hospitalization. The significance of this fact, of course, is altered by the assumption that it was the more desperate cases which erroneously dictated the use of constant oxygen therapy.

Morphine was used in three cases of our series, in only one in amounts and at a time which might point to possible significance in supporting respiratory failure and acidosis. However, there is no doubt that the use of morphine or any other type of respiratory depressant is contraindicated in these cases. This points up the extreme importance of differentiating these cases in which respiratory insufficiency is a dominant factor from cases of congestive heart failure with pulmonary edema, where morphine is a specific and sometimes quickly needed medication. Thus, the differentiation must often be made entirely on clinical grounds. Morphine, it should also be remembered, depresses the cough reflex, and thus may pose a serious problem where one is dealing with secretions in the respiratory tract.

Bronchodilators such as isopropylarterenol (Isuprel) may be helpful in increasing alveolar ventilation. These may be used in conjunction with oxygen therapy on an intermittent basis by making use of a nebulizer which can be connected to the oxygen system.

Pneumoperitoneum has been helpful in the cases in which emphysema is a predominant factor. Carter et al<sup>8</sup> described results in 22 cases with pulmonary emphysema treated with pneumoperitoneum. In these patients cor pulmonale was minimal if present and pulmonary infection was adequately treated. Of this group 13 showed improvement, 10 marked improvement. In this group the total lung capacity was found to be normal, with residual air doubled at the expense of the vital capacity, which was reduced to an average of 60% of normal. The pneumoperitoneum corrected this shift by increasing the average vital capacity from 1989 to 2345 ml, and reducing the average residual air from 2677 to 1980 ml. In our group of cases pneumoperitoneum was used in a total of five with an average increase in vital capacity of 510 ml. Marked symptomatic relief was obtained in two cases, and moderate relief in the third. Recent reports seem to minimize the effectiveness of pneumoperitoneum in cases of chronic emphysema. However the importance of this procedure as one of the weapons in the armamentarium to be used in the treatment of acute respiratory failure and CO<sub>2</sub> intoxication cannot be minimized. The use of artificial respiration as administered in conjunction with a mechanical respirator should also be mentioned in this connection.

In severe cases of CO<sub>2</sub> intoxication this device may be used most effectively where the patient has become comatose. The artificial respiration allows for the elimination of CO<sub>2</sub> and at the same time permits free administration of oxygen. From a purely mechanical standpoint pneumoperitoneum may be helpful in conjunction with the respirator, particularly where the patient has a scaphoid abdomen.

The treatment of infection is obviously an important aspect of handling the problem of pulmonary insufficiency. Bronchopneumonia, a frequent complication, must be treated vigorously. Early treatment of tuberculous lesions of course is important, chiefly in the preventive aspect.

The right sided failure of cor pulmonale is a prime example of high output failure and, as such, would show a characteristically poor response to digitalis therapy. Nevertheless, Ferrer<sup>10</sup> found that right ventricular end diastolic pressures fell in patients with chronic cor pulmonale with congestive heart failure treated with rapid digitalization, and that with long term digitalis therapy the patient showed marked clinical improvement, improved pulmonary function, a lowered cardiac output, reduced pulmonary artery pressure and a right ventricular diastolic pressure within normal limits.

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# PHYSICIAN AND CITIZEN

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Washington, D. C.

Not too long ago I was privileged to address a county medical society at its 100th anniversary celebration. I was asked to talk on that occasion on the subject of "Our Heritage is Our Responsibility." Many of the things I said then could equally well apply to tonight's occasion and subject "Physician and Citizen."

What of the physician? In ancient Rome, Seneca said "You buy from your physician something of inestimable value: Life and Health. The physician's heart beats faster because of me and not because of personal fame in his art. It was not enough that he prescribed and even brought to me the necessary remedies in person. He sat anxiously by my bedside and came at once—he did not refuse any service, and he listened to my sighs and complaints with true compassion."

The strength of the physician rests not in his degree, nor his training, nor his license to practice, nor his experience—his strength is the man that he is, and the life that he leads. Each of us in our own way contributes to the ideal of the physician, and each of us holds within himself a part of that ideal. We have the knowledge and power gained from our predecessors. We have the help and support of our colleagues. We have the respect and honor with which we ourselves hold our profession. We determine what the physician is! We live his life in the clinic, in the hospital, and in our professional societies and organizations. We are physicians.

And great are our responsibilities! Into our care is given the first cry of the new-born, the confident smile of the child, the happy hope of young motherhood, the sturdy strength of maturity, and the quiet contented peace of old age. These are indeed great responsibilities. These are the things of which the full life is made. The burden of them lies heavy upon us! And with it we in the United States

have acquired an even greater responsibility. This is a new burden laid upon all citizens by our ancestors when they brought forth on this continent a new idea of government based upon the right and dignity of the individual. For physicians it was both our professional and our genetic ancestors who placed this burden upon us. Among our professional forebears, Benjamin Rush, of Pennsylvania; Josiah Bartlett and Matthew Thornton, of New Hampshire; and Lyman Hall, of Georgia; were signers of the Declaration of Independence. The man who commanded at Bunker Hill and who lost his life there was also a physician, Dr. Joseph A. Warren. Another Dr. Thornton, Dr. William Thornton, in 1792 requested by letter an opportunity to present to a special commission a plan for a capital building. The request was granted and the plan presented was accepted on April 5, 1793. It was from this plan that the U. S. Capitol was built.

The forces which brought about the concept of democratic government—the birth and growth of the idea of individual liberty—replaced the tradition-directed formation of the average man's destiny by birth and custom. With the development of liberty and freedom there was also developed the idea of a moral code of conduct upon which a person could base his decisions, and around which he should organize his life. This moral code has been described by Emerson as a quality which he called Character and defined as "reserved force which acts directly by presence and without means, a moral order seen through the medium of an individual nature—the healthy soul standing united with the Just and the True." Of recent years, said by some to have begun in this country in the nineteen-twenties, new forces shaping and molding individual destiny have become more and more prominent. These are forces sired by many social philosophers, not the least among them being Karl Marx. They would mold your destiny in response to your contempo-

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rarities opinion of you. That is to say, the individual is being molded primarily by the impact of society upon him.

The medical profession has not been quick to respond to socialization as the mold of its members' characters and destiny. We have preferred to continue to be inner-directed by justice and truth and thus become men of character. Emerson long ago warned that "as such we shall become the conscience of the society to which we belong." We have thus assumed another heavy burden and one which has made us the target of much abuse. It is no light task to be the conscience supporting individual freedom in a society hell-bent for socialization.

There is nothing new in this cycle of a traditionally directed, then individually or inner-directed, and finally an outer or socially directed society. It has happened before; it has happened many times before. The Greek city-states arose around a traditional position, blossomed under the hands of strong individuals of exceptional character, and gradually deteriorated under the unwise emotionalism of mob rule. Rome developed under the impetus and strength of the ideas of the few individuals, grew for centuries as she broadened her borders and provided a frontier for the development of strength and individual character and then collapsed from that internal canker symbolized by the Roman cry for "Bread and Circuses." Let us hope that we do not rush through this basic cycle in only two centuries to collapse waving the banner of "Social Security and Television."

Medicine, throwing the full weight of responsibility upon the individual, has continued to develop the strengths that lie within the Man. The majority of the physicians in this country stand apart and on their own feet, bearing the burden of their responsibilities and thus constantly reinforcing and promoting the growth of their Character and Individualism.

When certain fundamental democratic principles, (which physicians knew to be necessary for good medicine,) were being attacked, they rose up, carried their case to the ears of the multitude, got the public's attention and have held off for a little while at

least the forces which would have weakened our whole society in the name of statism.

What has the medical profession developed to protect the interests of its patients, which are its own interests? What have we done—What are we doing,—and what must we do as citizens? All citizens have become thoroughly entangled with a vastly expanding federal government. Medicine has established in Washington an office to keep it immediately, completely, and accurately informed on all governmental matters with a special attention to those directly affecting the practice of medicine. Our direct duty to our patients is to see that proposals affecting their health, and the health of the nation, be carefully evaluated before they are adopted. We must, therefore, promptly, fairly, and honestly present the facts, and sound conclusions based upon those facts, to our legislatures and administrators. This constant two-way transfer of information is a responsibility which we in the AMA Washington Office have had the privilege of accepting as our charge.

If any of you in this audience thinks you are not as an individual citizen heavily entangled with the federal government, reach your hand into your pockets on April 15th and see if you do not encounter the tax-collector's hand there ahead of you! If you do not believe that the federal government is heavily involved in medicine, let me give you the figure for federal expenditure for medical care and medical research for the 1955-56 budget. It is in round numbers about 2 billion 250 millions of dollars (\$2,250,000,000.) Stated another way it is over one-sixth of the amount which is the most liberal estimate for all medical expenditures from all sources in this country, including everything from baby powder to autopsy knives.

How does this medical liaison group operate? Do we go up on Capitol Hill and pound on desks, threaten reprisals, buy votes and in other ways follow the primrose path of political expediency? Some of our enemies would have you believe this, but it is not so. And God willing, it will never be so. As long as the electorate of this country has the understanding and wisdom to send to Washington a majority of representatives who are straight-

forward, upright and honest men and a few who are really statesmen.—As long as this is true and our position is taken after the careful collection and thoughtful examination of the facts, when our only consideration is the ultimate good of our patients, (that is to say, if we form our conclusions using the methods of good medical practice) then we can be almost sure that the majority of the representatives in government will see the wisdom of our stand. We will then earn, and we must jealously guard, the confidence of the Congress and of other governmental leaders.

We should not indulge in petty partisan politics; we can never sacrifice principle for expediency; and we must always hold before us truth and justice. Holding to these principles, we shall always be afforded the opportunity to present our case before the Congress.

Honest individuals with a real interest in good government are always welcome visitors on Capitol Hill when they know what they are talking about and know it in a few short sentences. But such spokesmen alone carry no political force. Political force lies in the hands of the citizens of the individual districts and states, in their knowledge and understanding of the issues and their determination that their representatives in the Congress shall know of their interest. If you, as members of the medical profession, base your political decisions on what is best for the patient, you don't have to have any hesitancy about speaking up. Remember, whether or not your

modesty allows you to admit it, the fact is that by the nature of your training in your profession you should be leaders in your communities. If you are honest, conscientious physicians, you are respected and can be influential. Legislators know this and the good ones (and most of them are good ones) want guidance from such informed, responsible individuals.

As physician-citizens you owe it to your country to understand its problems, to interest yourself in their solution and to carry your ideas to your designated leaders. In carrying out these objectives: know what you are talking about, establish a firm position which is your own, and present your position to your representatives in a respectful and reasonable way. Don't shun active participation in politics. I quote you the statement of a member of the New York Times editorial board who has recently said "A voter who won't interest himself in the preliminary practical politics of party affairs has no right to complain if things don't go well. Party leaders reflect the attitude of the rank and file." Interest yourselves in the drive for an efficient government, but don't expect too much efficiency. In the words of Robert Moses "democracy is bound to be relatively inefficient because the happiness of countless individuals, rather than the triumph of the state, is its purpose." Finally, remember that in a democracy, if it is to survive, being heard is not only the right of the individual citizen but his duty. Speak you now, that your children and grandchildren may always be allowed to speak.

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*Plastic Surgery of The Eyelids.* Kenneth Pickrell, M. D., Nicholas Georgiade, M. D., Carter Maguire, M. D. (Charleston) and Hugh Crawford, M. D. *Am. Jour. Surg.* 92:61-67, 1956.

Plastic and reconstructive surgery of any anatomic region implies rather specialized procedures on that part. The general surgeon, however, confronted with traumatic wounds, neoplastic lesions and deformities in and around the eyelids should have knowledge about the proper methods of excision and repair in order to avoid injurious consequences. With this thought in mind, this article was written for the general surgeon rather than the specialist.

Local anesthesia is used whenever possible. Frequently cooperation of the patient is helpful in this type of surgery.

The broad field of acute trauma and post traumatic deformities is discussed with various methods of correcting each type of deformity. The preferential ap-

plication of Z plasty or grafts is discussed and illustrated. Reconstruction of the eyebrow via scalp flap or free hair-bearing graft is shown. An example of corneal tattoo for opacities of the cornea is presented but it is emphasized that penetrating wounds of the globe demand expert ophthalmological care to preserve vision. Reconstruction of the empty orbit for accommodation of a prosthesis is discussed as is the preferred treatment of ectropion and entropion of the eyelids.

Benign and malignant tumors of the eyelids are shown with methods of correction. Hemangiomas, nevi, dermoid cysts, neurofibromas, papillomas, fibromas, and xanthomas as well as basal and squamous cell carcinoma are discussed as to their occurrence and treatment.

As in all head and neck cancer surgery, it is preferable for the destructive and reconstructive work to be done by the same surgeon. Most often, these two phases can be accomplished at the same operation.

# MEDICAL COLLEGE CLINICS

## THE MEDICAL COLLEGE OF SOUTH CAROLINA

### ELECTROCARDIOGRAM OF THE MONTH

#### THE MASTER TEST

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*Case Record:* A 60 year old business executive with no previous history of cardiac symptoms experienced a brief episode of discomfort in the midchest immediately following the exertion of helping to pull a boat out of the water. Again some three months later after walking two blocks in the cold he felt a constricting substernal pain which subsided quickly on resting. Since then the same pain had recurred occasionally on climbing stairs or on walking several blocks, especially after eating a full meal. Several electrocardiograms had been reported as showing no abnormalities.

Physical examination was not remarkable except for a slight obesity and xanthelasma of both upper eyelids. The blood cholesterol was 250 mg./100 ml. Complete roentgenographic examinations of the chest, the gall bladder, and the entire gastro-intestinal tract were likewise negative.

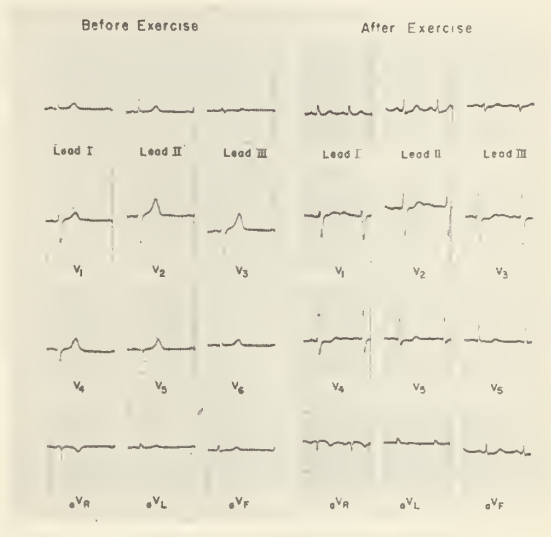
The electrocardiograms below were recorded ten months after the first episode of chest pain. That on the left is the tracing made with the patient in the usual resting state. He was then exercised in the manner set forth in the "Master 2-Step" test<sup>1</sup> and immediately thereafter the tracing on the right was recorded. Some transitory substernal pain was experienced at that time.

*Electrocardiogram:* The resting electrocardiogram on the left is entirely normal. Amplitude of the QRS complexes might be said to be moderately low, but it does equal or exceed 5 mm. in one or more of the standard leads. Moreover this is not unusual for subjects in the older age group.

Following exercise the heart rate has increased to approximately double the resting rate of 60. The formerly tall T waves in most precordial leads have become flattened with perhaps some semi-inversions. Definite depression of the S-T segments has appeared: about 0.5 mm. in V-3, 4 and 5, and reaching 1 mm. in lead II.

*Discussion:* The diagnosis of coronary artery disease in the presence of a normal electrocardiogram often poses a most difficult problem. Even with a history

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of quite typical chest pain some objective evidence of cardiac origin of the pain is helpful—though it may not be necessary—in establishing the diagnosis of coronary disease.

Testing the reserve of the heart or almost any other organ or structure ordinarily entails putting it under some degree of stress. Just as dyspnea or pain or even heart murmurs may occur after stress so also certain electrocardiographic abnormalities may appear only at that time. It is of course well known that a normal resting electrocardiogram in no way rules out even advanced coronary sclerosis. On the other hand, in the presence of cardiac symptoms or ECG abnormalities at rest an exercise test is not only unnecessary but usually contraindicated.

At present two general types of tests are in common usage by cardiologists. The anoxemia test, in which the subject is made to breathe a mixture containing only 10% oxygen for a measured number of minutes, lowers the oxygen saturation of arterial blood and may induce both anginal pain and electrocardiographic changes from an area of myocardium which is already partially ischemic. The other group of tests involve various types of physical exertion which increase the work-load of the heart with essentially the same results. At present the most popular type of exercise test is the "Master 2-Step" in which the subject ascends and descends two 9 inch steps a variable number of times (depending on age, sex and weight) in one and one-half minutes. It is an attempt to standardize the physical stress imposed on the heart.

After a control ECG, recorded with the patient at rest, the electrodes are left in place during exercise so that the tracing may be repeated with as little delay as possible—within a minute or so—following exertion.

Criterion of a positive test as set forth by Master is depression of S-T segments of more than 0.5 mm. in any lead. Some cardiologists believe this to be too liberal, that a minimum of 1 mm. displacement should be produced following exercise to substantiate a diagnosis of coronary insufficiency. (It might be pointed out that the P-Q or P-R interval is used at the reference baseline, rather than the longer line between the T and P waves). This S-T segment depression presumably results from acute ischemia of the subendocardial myocardium which is at the most distal point of the coronary circulation. The injury current is transitory, may last only about a minute, and may sometimes be abolished or prevented completely by administration of nitroglycerin or other vasodilator drugs.

Rather prominent alterations in T waves are often seen following exercise, especially<sup>3</sup> in the precordial leads as illustrated here. While these changes may be far more conspicuous than the S-T shifts they are generally considered to be of relatively little significance.

Probably the anoxemia type of test constitutes a more standardized stress on the heart than can be obtained through physical exertion. Unquestionably, however, it is fraught with greater risk. On the other hand, the Master 2-Step and other exercise tests have the advantage of being less apt to provoke fear and apprehension because they involve activities familiar to the patient. But the validity of standardizing physical exertion by an age and weight table is open to question. Work performed may be calculated (said to be about  $1/10 - 1/8$  horsepower) but the individual effort—and, probably, cardiovascular stress—entailed in accomplishing that amount of work is less measurable. It seems likely that twenty turns up and down the two steps in the allotted time would impose a greater stress on a man accustomed to a sedentary life than it would on an habitually more active person though both may be of the same age and weight. Certainly no particular ritual of exercise is necessarily superior to other familiar exercises. And it goes without saying that if the patient develops anginal pain at any stage of the test the stress is terminated promptly and the tracing recorded at that stage. Purpose of these tests is not to produce symptoms but to bring about significant electrocardiographic changes.

The Master test illustrated above is unequivocally positive and indicative of coronary insufficiency.

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## PEDUNCULATED SUBMUCOUS FIBROMYOMATA A CASE REPORT

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M. R., a 24 year old colored, unmarried female was referred to the Cancer Clinic on July 12, 1956. Her chief complaint was abnormal vaginal bleeding for three years. She stated that her menarche occurred at 16 years of age with normal menstrual periods that appeared at 28 day intervals and lasted 3 to 4 days until 3 years ago. At that time, during a menstrual period, while lifting a washing machine, she felt "as if something broke in my privates". This was followed by a profuse hemorrhage from the vagina associated with the passage of many clots. Since that time she has had two menstrual periods each month which were associated with severe dysmenorrhea, numerous clots, and excessive vaginal bleeding. Each of these menses lasted approximately 7 days. Following each menstrual period, she has had a bloody discharge which gradually became purulent until her next menstrual period occurred. She was admitted to a hospital 3 years ago where dilatation and curettage was done, but she was not told what was found. Since that time she has been treated with numerous medications and injections, all to no avail. A severe episode of vaginal bleeding occurred on July 1, 1956 which was more profuse than usual and at that time she fainted. Her mother states that this was a convulsive seizure; however, she did not have convulsions, but did froth at the mouth. No past history of epilepsy was obtained. Two weeks ago she was unable to urinate and it was necessary to go to her family physician for catheterization.

Physical examination revealed a pale, chronically ill Negro female with a temperature of 99 degrees F., pulse rate of 100 per minute, and respirations of 20 per minute. Her height was 5 feet,  $3\frac{1}{2}$  inches and she weighed 120 pounds. The blood pressure in her left arm was 140 mm. of mercury systolic and 80 mm. diastolic. Except for pale mucous membranes, the positive findings on physical examination were confined to the pelvis. Speculum examination revealed the vagina to be filled with a purulent, foul, bloody discharge, and there was a large mass protruding into the vagina which was greyish in color, mottled, and extremely vascular. The cervical os could not be demonstrated, but bimanual examination revealed the mass, (See Fig. 1), which was approximately 4 x 5 cm., to be movable but attached to a pedicle extending into the uterine cavity. The uterus could not be outlined and the adnexal regions were negative. Recto-vaginal examination confirmed these findings.

Laboratory studies disclosed a hemoglobin of 7.5 grams per 100 ml. of blood, a leukocyte count of 13,000 with a differential of polymorphonuclear leukocytes 72%, non filamented leukocytes 8%, lympho-



Figure 1.—Pedunculated Submucous Fibromyomata Extruded into Vagina.

cytes 22%, monocytes 4%, and eosinophils 2%. The urinalysis was normal, blood urea nitrogen was 14 mg. per 100 ml. and a fasting blood sugar was 60 mg. A routine chest roentgenogram revealed a normal chest with normal cardiac and lung outlines. A scout film of the abdomen was essentially negative.

The patient was admitted to the Medical College Hospital on July 12, 1956, where she received 1000 ml. of whole blood which raised her hemoglobin to 10 grams per 100 ml. of blood. On July 16, 1956, under general anesthesia a pelvic examination was carried out confirming the presence of a 5 x 4 cm. irregular, nodular mass presenting in the vagina. This mass was attached to the fundus of the uterus by a pedicle which was approximately 4 cm. in length and 2 cm. in diameter. The cervix was completely dilated and effaced. The pedicle was incised by sharp dissection following which the proximal end retracted into the uterus. The base of the pedicle was then curetted with a sharp curet, and there was no bleeding following surgery. She received an additional 500 ml. of blood during the operation and her hemoglobin on July 17, 1956 was 12 grams. She was ambulatory immediately following surgery, had no vaginal bleeding, and her post operative course was entirely uneventful. She was discharged from the hospital on July 18, 1956 in good condition.

The final clinical diagnosis was that of a pedunculated submucous uterine fibroid extruded into the vagina with secondary anemia due to chronic blood loss. The specimen was described grossly by the department of pathology as "an irregular mass of lobulated tissue 6 cm. in diameter bearing on its surface brownish gray

exudate. On section it consisted of dense, pale tissue with characteristic whorls. Section showed sheets of fibromuscular tissue in which the smooth muscle bundles were closely packed and entwined with each other. On one surface there was a layer of necrotic material." The final pathological diagnosis was "fibromyomata of the uterus, inflamed and ulcerated."

The patient has been seen for one follow-up visit on August 6, 1956. At this time she had no complaints, and has had no further vaginal discharge or bleeding. Her general physical and pelvic examinations were essentially negative. Speculum examination revealed the vagina to be clean and the cervix had returned to its normal size. The external cervical os was closed, but admitted a uterine sound without difficulty.

#### Discussion

Patients with a pedunculated submucous fibromyoma which has been extruded from the external cervical os, usually give a history of labor-like pains. The extruded submucous fibromyoma is always infected and necrotic; thus, it should and must be removed by the vaginal route to prevent the development of pelvic or generalized peritonitis that frequently follows abdominal removal. The anerobic-gram-negative, non sporulating bacilli belonging to the genus *Bacterioides* are often the causative organism in the peritonitis which accompanies abdominal removal. The response of bacterioides infections to antibiotics and chemotherapy is not well known.<sup>1</sup> The size of the submucous fibromyoma is not a determining factor in the route of removal since the large ones may be removed by morcellation. For example, several years ago, a large infected submucous fibromyoma was removed per vagina and the collected pieces weighed over 11 pounds.

There is little danger from uterine hemorrhage since the blood supplied through the pedicle is usually compromised. In the past great effort has been made to ligate the pedicle; however, that policy has been discontinued with the saving of time and with no increase in blood loss. If other fibroids of the intramural or submucous variety are present, abdominal hysterectomy should not be performed at this time because of the danger of infection. The patient should be reevaluated at 4 to 6 weeks and if indications are then present for a hysterectomy, it should be done only after the

(Continued on Page 461)



## PRESIDENT'S PAGE

### MEDICARE

Medicare is the term used to designate the federal program—Military Dependent Care. At the time of this writing any remarks can serve only as a background. The program becomes effective December 7, 1956. Before that date it will be considered by Council and will be the subject of a special meeting of the House of Delegates called for the purpose of deciding upon a fee schedule and to authorize the signing of a contract between the South Carolina Medical Association and the federal government.

The purpose of the program is to fill the long felt need of more adequate provision for medical care of the dependents of the members of the uniformed services. It includes the military, the Coast Guard, the Coast and Geodetic Survey and the U. S. Public Health Service. It will provide medical services by civilian physicians and hospitals where they are not reasonably obtainable at military establishments. In general the care is limited to acute medical conditions, acute exacerbation of chronic diseases, surgical conditions and maternity and infant care.

Care will be taken not to deprive the physicians in the service of the valuable well rounded experience gained in caring for the families of the service men. Likewise care will be taken not to overtax civilian facilities. It will have the effect of improving the morale of service men in knowing that their dependents are well provided for in case of illness. Making use of civilian facilities should avoid the necessity of increasing the doctor draft, as well as the size and number of medical military establishments.

The cost will be taken care of by insurance, in which the patient is a co-insurer so as to avoid abuse. Contracts will be made on a state basis. The insurance will be of the service benefit or full payment type, the same as in Blue Shield. The fees will be the same, regardless of salary of the service man. The fee schedule will be higher than the Blue Shield schedule in South Carolina. The physician has the right to refuse to accept any patient. It is likely that Blue Shield will serve as the fiscal agent for the South Carolina Medical Association.

In general the program is sound. It fills a need in a very satisfactory manner. In spite of careful planning, problems will arise; these will have to be ironed out during the course of its administration. It should have the support of the physicians of South Carolina.

William H. Prioleau, M. D.  
President South Carolina Medical Association

October 29, 1956

# Editorials

## MEDICARE

Because of various factors, the Congress of the United States enacted Public Law 569, Dependents' Medical Care Act, (Medicare.) The law will become effective on December 7, 1956. It provides that wives, dependent husbands and children of the members of the uniformed services are eligible to receive, at government expense, specified medical care in civilian hospitals and from civilian physicians and surgeons. Among the factors motivating Congress was the fact that many dependents of military personnel live in areas where medical care by military facilities is not available. In addition, reenlistment was low because of the frequent complaint on the part of military personnel that their dependents could not obtain medical care. Because the armed services have a high investment, in many instances, in the training of highly specialized personnel, it is desirable to foster conditions conducive to reenlistment.

In the implementation of the Act, collaboration has been sought with the AMA. Original drafts have been subjected to numerous revisions. In its final form, the Act has the approval of the AMA. The government has directed that fee schedules should conform with prevailing rates within the various states, and that each state should negotiate a contract with the government on a statewide basis.

The medical program is limited, in that it does not cover "out patient" or "office visit" care in the usual meaning of these terms. The program is primarily for the care of conditions requiring hospitalization.

The dependents will be required to pay \$25.00 or \$1.75 per day (whichever is greater) for each hospital admission. Payment up to \$75.00 for necessary diagnostic tests and procedures prior to hospitalization is authorized, and up to \$50.00 after discharge. Hospitalization is required for these fees to be effective. Should hospitalization not occur, the patient is responsible.

The Act also provides, however, for treat-

ment of fractures, dislocations and lacerations for which the patient is not hospitalized. It allows payment up to \$75.00 for necessary diagnostic procedures prior to treatment, and up to \$50.00 for subsequent procedures (follow up x-rays, etc.) The patient must pay the first \$15.00 of the professional fee.

The basis of the negotiated medical fee schedule is \$5.00 for a hospital visit. It is expected that on the first day of admission a fee of \$10.00 will be allowed under the heading on the schedule "Hospital visit necessitating care over and above routine hospital visit." For consultation for a given system, but requiring complete examination, a fee of \$15.00 has been accepted. \$35.00 is the fee mutually agreed upon for consultation requiring complete examination (office or hospital.)

The government was particularly desirous of working out a "package deal" for an obstetrical fee schedule, to insure the peace of mind that military personnel derive from a feeling of security for their dependents in pregnancy and its complications.

The mutually accepted schedule in obstetrics is as follows:

Obstetrical delivery including antepartum and postpartum care	-----	\$135.00
Obstetrical delivery excluding antepartum and postpartum care	-----	65.00
Antepartum care	-----	70.00
First trimester (first 14 weeks of pregnancy) 25% of above	-----	17.50
Second trimester (next 13 weeks of pregnancy)	-----	17.50
Third trimester (after 27 week of pregnancy) 50% of above	-----	35.00
Obstetrical delivery including postpartum care	-----	72.00
Postpartum care performed by physician other than physician performing delivery, 1/10 of antepartum care	--	7.00

When, by custom, the doctor delivering the baby cares for the baby, this care is included in the "package deal under "obstetrical care" with no additional fee. When, by custom, a

pediatrician is called, he attends the child under the medical fee schedule.

Two visits are allowed for the neonatal child after delivery on the basis of "Home or office visit" (first call, routine history and necessary examination \$10.00) and follow up office visit \$5.00.

Other obstetrical fees agreed upon were:

Abdominal hysterotomy	\$175.00
Miscarriage or abortion before period of viability (no surgery)	45.00
Miscarriage or abortion after period of viability	100.00
Miscarriage or abortion including D & C	65.00
Therapeutic abortion by D & C	65.00
D & C for postpartum bleeding	45.00
Circumcision	15.00

In addition to the "package deal" the attending may charge for office urinalyses, hemoglobin determinations, etc., under the appropriate "Pathology" fee schedule.

Where a physician terminates his care at the time of the patient's hospitalization, a fee of \$5.00 is allowed for office visit and \$7.50 for home visit (laboratory work extra.) Mileage is allowed on a basis of eighty cents a mile one way, over ten. No fee is allowed if the patient is not hospitalized, as the patient then pays, except as mentioned above in cases of fractures, etc.

A surgical assistant fee is allowed in addition to the regularly scheduled surgeon's fee on the basis of a minimum of \$25.00 or 10% of the surgical fee, whichever is larger.

The fee for surgery includes "ordinary after care". In case of complication arising, such as peritonitis after appendectomy, there is individual consideration by report for exceptional care.

Examples of fees in different categories, to which all fees in the complete fee schedule are relative, follow.

Surgery	
Appendectomy	\$150.00
Hysterectomy	215.00
Herniorrhaphy	130.00
Hemorrhoidectomy	100.00

Cholecystectomy	235.00
Colles' fracture	65.00
Hip pinning	250.00
Intervertebral disc	300.00
Nephrectomy	300.00
Tonsillectomy	65.00
Cataract	300.00

Anesthesia	
First half hour	18.00
Third and fourth quarter hour (or fraction)	6.75
Each succeeding quarter hour or fraction	4.50

Pathology	
Routine chemical urinalysis	1.00
C. B. C.	5.00
Gross and microscopic	20.00
Papanicolau	15.00

X-Ray	
Chest	10.00
Lumbosacral with obliques	20.00
Postoperative breast therapy	200.00

It was mutually agreed that the highest surgical charge for the income group represented should be \$425.00.

All military dependents will be given a bulletin through command channels delineating the scope of the service to be rendered, with explanation of *their* personal responsibility, so as to minimize the chance of misunderstanding.

Dependents will be identified by a "Dependents' Authorization for Medical Care" card. "Doctors and hospitals are expected to use 'reasonable care and precaution' in identifying dependents. *However, when care is furnished in good faith and subsequently it is determined that the dependent is not entitled to such care at government expense, any action for recovery instituted by the government will be against the dependent or his sponsor, and not against the doctor or the hospital.*"

Each fee in the schedule was examined and recorded (approximately 1600.) Agreement was mutual in every instance.

The program merits the support of the physicians of South Carolina.

J. A. Siegling, M. D.

## POLIO VACCINATION PAUSES

Figures from the State Board of Health indicate that only slightly more than a third of the eligible population in South Carolina have received even one dose of polio vaccine, in spite of the fact that the vaccine has been available free or at small cost. The Federal bounty is scheduled to end next July, but there are not yet enough taxpayers availing themselves of the taxsubsidized vaccine.

Because there has been relatively little poliomyelitis in the state this year there has been no great public concern over the disease. This is a matter of congratulations for the present but of concern for the future. Nothing stimulates demand for vaccinations like a good epidemic, which acts as a useful but drastic prod.

Public health authorities are planning to push vaccination hard in the next few months. This is a proper procedure to take advantage of free supplies now going begging, especially for the less educated part of our population. It is likely that these authorities will need some voluntary assistance from the profession, and it is expected that this will be provided cheerfully.

All physicians should be glad to see a fully successful vaccination program, for the sake of public health. Most of them will be happier when the big push is over, and polio vaccination can take its logical place with the other routine immunization procedures.

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## OPEN HOUSE OPEN TO QUESTION

Several times lately there have appeared announcements in the public press of "open house", celebrations for the local gentry at the opening of medical offices or clinics. Following these announcements there have been fuller reports of the proceedings—sometimes they have included music, invocations and dedications by the clergy, mention of available facilities such as x-ray machines, electrocardiographs and the like. As yet there has been no mention of free sample diagnosis, free shots of penicillin, demonstrations of impressive electrical gadgetry, or prizes given for guessing the number of pus cells in a urine specimen, but it seems not unlikely that these

refinements of attraction in time may be included.

There seems to be no good excuse for this sort of advertising. It detracts from the dignity of the profession and reduces its activities to those of a commercial trade. Even if it be intended as a gesture of community good-fellowship, it is a long departure from the tried and approved method of simply announcing that one has started practice. It is difficult to conceive that the physician beginning practice could be entirely ignorant of the customs and ethics of his profession, or that he would fail to inform himself by way of the many available sources of information.

Open houses should be shut.

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## JOURNALS GO TO STUDENTS AND HOUSE STAFF

Beginning with the October issue the Journal now goes to all the senior students at the Medical College and to all members of the house staffs of hospitals of the state. This arrangement is the result of the genesis of a thought that students and recent graduates know very little about organized medical affairs, and that both the association and the potential members will be benefitted by earlier acquaintance. The expense of this undertaking has been borne by the kindness of Eli Lilly and Company for a period of nine months. It is hoped that the arrangement will prove mutually satisfactory. Its continuance may be insured by your comment to the people concerned.

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## HOW TO BE MORE POPULAR WITH YOUR PATIENTS!

Most people like their doctors and are generally satisfied with medical service. But the public offers some definite suggestions for ways doctors might improve the doctor-patient relationship.

These suggestions came to light when results of a nationwide survey done by a market research firm for the American Medical Association were tabulated. Heading the list of suggestions for doctors was "be available, come when called." This desire that a doctor be available when needed is not news to the

medical profession, whose members have been working for the last five or six years to blanket the country with 'round-the-clock emergency call systems and similar informal arrangements to guarantee that availability.

Second suggestion from the public is "charge lower fees." Doctors have long suspected that most of the profession's public relations problems arise from the economic side of medicine. Yet in the survey individual doctors' charges receive only moderate criticism by the public. The public is by no means as critical of doctor bills as it is of other costs of medical care, such as hospital and drug bills. Almost five times as many people (41%) say hospital bills have risen the fastest since World War II as say doctors' bills have (9%). Almost four times as many (32%) mention drug bills as having increased with the greatest speed.

People want doctors to take more personal interest in them and be more friendly and sociable, the survey showed. Assembly-line medicine, where patients are rushed through in an impersonal manner is not what the average American is seeking in his own physician.

Closer adherence to appointment schedules is also suggested by the public who express annoyance at unreasonable waits to see their doctors. People also want doctors to be honest and frank with them in regard to illnesses and fees. They also think doctors ought to assume more responsibility for informing the public about medicine as a part of their efforts to get along better with the public.

#### **SOUTH CAROLINA STATE BOARD OF HEALTH NEEDS DOCTORS**

Due to retirements, the State Board of Health has several openings for medical officers under 45 years of age. Must be graduate of Class A Medical School and have completed at least one year's rotating internship. Prefer one who has had at least two years of general or specialized practice. Salary attractive. Eligible for group insurance, State retirement, and Social Security. Those under 35 eligible for U. S. Public Health Service scholarship leading to Master's Degree at recognized school of choice. Scholarship includes all school expenses plus living stipend based on number of dependents.

If interested contact Dr. C. L. Guyton, State Board of Health, Columbia, S. C.

#### **MINUTES OF COUNCIL COLUMBIA, S. C., NOV. 7, 1956**

A special meeting of the Council of the South Carolina Medical Association was held at the Columbia Hotel, November 7, 1956. The meeting was called to order by the Chairman, Dr. J. P. Cain at 2:30 p. m. All officers, councilors and delegates were present; in addition, Mr. M. L. Meadors and Drs. J. D. Guess, J. I. Waring, Julian Price, O. B. Mayer, J. A. Siegling and F. Owens attended.

The minutes of the meetings held at Myrtle Beach in May 1956 were adopted as printed.

The first item of business was consideration of negotiations for a contract with the Federal Government for the Medicare Plan. Dr. J. A. Siegling, chairman of the Committee to Draw Up a Fee Schedule for this Plan, reported on a proposed schedule based on the plan of the California Medical Association, with unit values assigned to each and every item of medical service and a conversion factor translating this into terms of dollars. Mr. Meadors spoke on the terms of the proposed contract with the Army and there was a considerable general discussion.

After lengthy consideration the following actions were taken:

1) On motion of Dr. Bachman Smith that the Blue Shield be designated as the fiscal agent of the South Carolina Medical Association in regard to the administration of the Medicare plan.

2) On motion of Dr. Wilson that the plan be approved in principle and that the suggested form of contract be likewise approved.

3) On motion of Dr. C. D. Johnson that the proposed schedule as presented by Dr. Siegling, based on the unit system with conversion factors for medical and surgical care of four, and pathologic and radiologic values of five, be approved.

4) That the Mediation Committee of the S. C. Medical Association be designated as a complaint committee.

5) That Council recommend to the House of Delegates that Drs. Siegling, J. P. Cain, W. H. Prioleau and Messrs. M. L. Meadors and William Sandow be designated as negotiators to attend the meeting in Washington for the purpose of negotiating the contract with the Army authorities.

6) That Council recommend that the House of Delegates give these negotiators power to act.

All of these actions were approved by Council without a dissenting vote.

Dr. J. H. Stokes, Treasurer, then presented his financial report for 1956, to November 1, 1956. This was received as information and on motion the Treasurer was given the thanks and appreciation of Council for his work in behalf of the Association.

Dr. Stokes pointed out that while the membership of the Association numbered a little over 1400, there were only approximately 1150 dues paying members and there was a suggestion that Honorary Membership be accorded only after 50 years of consecutive

membership or on retirement after 25 years of membership in the Association. No action was taken by Council but this matter was to be referred to the House of Delegates for their consideration in May 1957.

Because of the increasing obligations of the Medical Association Dr. William Weston, Jr. moved that Council recommend to the House of Delegates that the annual dues be increased from \$20 to \$30 a year; this motion was passed.

There was then some discussion as to whether or not the dues be increased further by \$10 each year as a contribution to the American Medical Educational Foundation, but no action in this regard was taken.

The Chairman announced that the next order of business would be the consideration of the budget for 1957 and after some discussion the budget was adopted as follows.

Secretary	
Office Help	\$ 900.00
Office Expense	600.00
Travel	500.00
Treasurer	
Expense	\$ 100.00
Journal	
Office Expense	\$ 1,200.00
Editor's Salary	1,800.00
Bus. Mgr's Salary	900.00
Printing	15,000.00
Executive Secretary	
Salary	\$ 8,200.00
Office Help	7,000.00
Travel	1,500.00
Rent	1,200.00
Newsletter	800.00
Office Supplies	1,500.00
Telephone and Telegraph	750.00
Utilities	350.00
Conf. & P. R.	750.00
Insurance	100.00
Delegates to A.M.A. and Alternates	
Travel Expenses	\$ 1,500.00
President	
Expense	\$ 1,200.00
General Expenses	
Woman's Aux.	\$ 600.00
President's Gift	200.00
Historical Commission	500.00
Infant Mort. Com.	200.00
Maternal Welfare Com.	200.00
Contingent Fund	1,000.00
Auxiliary Bulletin	1,000.00
Civilian Defense	300.00
Total	\$49,850.00

Dr. J. I. Waring, Editor of the Journal, reported that while the income from Journal advertising had increased, printing costs had increased even more so that the Journal was able to contribute but little to

the general funds of the Association. The Committee previously appointed to investigate the possibility of another firm printing the Journal, consisting of Drs. Waring and Wilson and Mr. M. L. Meadors, was directed to make further study along this line.

Dr. Frank Owens, Chairman of the Legislative Committee, reported that both the bills to regulate the practice of Optometry and of Podiatry died with the end of the last session of the Legislature and might be discussed by the Association when they were reintroduced, depending on the terms of the new bills. He said that the "Doctor Draft" Bill was scheduled to terminate July 1957 but with the change in the outlook in world affairs that perhaps this might not occur. Dr. Owens then discussed the present status of the drafting of physicians in South Carolina and reported that only a very small number had been called during the past year.

On recommendation of the Secretaries of their respective counties because of retirement and of sufficiently long membership in the S. C. Medical Association, Dr. L. H. Coleman of Spartanburg and Dr. G. T. Peel of Anderson were elected to Honorary Membership.

The Secretary read letters from former Governor James F. Byrnes and Senator Harry Byrd of Virginia acknowledging receipt of the resolutions passed at the last meeting of the House of Delegates.

The Secretary brought to the attention of the Council consideration of sponsoring the essay contest for next year and of financial participation in the state Science Fairs, but both of these activities were voted down by Council.

Dr. Charles Wyatt, Chairman of the Committee on Civilian Defense, gave an interesting and informative report on the activities of this committee. He stated that the Executive Committee of the State Board of Health designated the S. C. Medical Association as the agency responsible for civilian defense in regard to medical care and recommended that the authorized committee established by the State of South Carolina designate a Director of Medical Services in Civilian Defense. Dr. Wyatt was thanked by Council for his activity in the work of this committee and it was moved that \$300.00 be included in the budget to cover travel and other expenses necessary in this work.

Dr. J. P. Cain, Chairman of the Insurance Committee, reported that the Health and Accident Insurance Program had reached the number for qualification in only two districts and suggested that all members of the Association push this program which is of particular benefit to those members unable to obtain other insurance.

Dr. Charles Wyatt reported on the presentation of a bronze plaque to the Medical College of South Carolina in memory of Dr. W. L. Pressly and spoke of the exercises at the recent Founder's Day celebration of the Medical College. With the completion

their duties this committee was then discharged.

A motion was then made to authorize the President of the Association to call a special meeting of the House of Delegates to consider the Medicare Program and this was accordingly passed.

The Secretary was then directed to read a letter from Dr. W. Hart who presented the following resolution:

Whereas, the deaths in newborn infants, full term and premature, constitute a major cause of death in South Carolina, and

Whereas, several groups have shown interest and concern relative to this fact, and

Whereas, the separate efforts of these groups are often in duplication or inadequate, and

Whereas, unification of action would effect a better service from funds expended

We, the S. C. Chapter of the American Academy of Pediatrics, therefore, request that the Council of the S. C. Medical Association establish a standing committee on the Fetus and Newborn; that this committee be composed of the following:

S. C. Medical Association	2 members
S. C. Gyn and Ob Society	2 members
S. C. Academy of General Practice	2 members
S. C. Pediatric Society	1 member
S. C. Chap., Amer. Academy of Pediatrics	1 member
S. C. State Board of Health Staff	2 members
S. C. Nurses Association	2 members
S. C. Hosp. Administrators Assoc.	2 members

A chairman appointed separately by Council, and such others as Council may deem wise, these members to be nominated by the presidents or heads of the several organizations and appointed or invited by Council for five-year terms with an initial system to insure overlapping.

The purpose of this committee should be to study the problems in S. C. relative to the fetus and newborn; to formulate plans for better care by means of education, training, inspection and instrumentation; and to promulgate these plans on a long-term basis of continuing action.

The Chairman of the committee should be a person who has shown an interest in this problem, a willingness to devote the necessary time and energy and agreement to head this work.

Council directed that this be presented to the House of Delegates without recommendation.

Dr. William Weston, Jr. then spoke of the establishment of poison control centers in the state, to the end that accidental death from poisoning, particularly in infants, be better controlled. This was approved in principal by Council.

A letter was read requesting the endorsement of Dr. Gunner Gundersen as President of the American

Medical Association. This was received as information.

Dr. J. D. Guess reported that Dr. T. G. Goldsmith had resigned as a director of the Blue Shield plan and that Dr. Hal Jameson of Easley had been appointed to replace him for a term ending in June 1957.

Dr. Bozard reported on a case of death from abortion in his district and was advised by Council that he himself should take no action in this matter.

Dr. J. I. Waring was then elected Editor of the Journal for the calendar year 1957 and Mr. M. L. Meadors was elected Executive Secretary of the Association for the same period of time.

It was announced that the dates of the annual meeting had had to be changed and it would be held at Myrtle Beach, April 29th to May 2, 1957.

The Treasurer was authorized to draw on the reserve funds of the Association to meet current expenses should this be necessary.

It was suggested that tickets for the banquet at the annual meeting and other occasions be sent in advance to visiting speakers and this matter was left to the discretion of the committee on arrangements.

Dr. J. I. Waring then requested the advice of Council as to the future policy in regard to public relations and it was left to the discretion of the committee as to whether Mr. Taylor would be employed on a full time schedule or by piece-work; the expense for this was authorized up to a total of \$1,200 each year.

Wearry and worn, Council adjourned at 7:20 p. m.

Respectfully submitted,

Robert Wilson, M. D., Secretary

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## DEATH

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### DR. EDWIN MARSHALL ALLEN

Dr. Edwin Marshall Allen, 76, of Florence died at his residence on November 11 after being in declining health for several years.

Dr. Allen was born June 19, 1880, in Florence. He attended the University of South Carolina and was a graduate of The Citadel in the class of 1901 and a graduate of the South Carolina Medical College in 1905. After doing post graduate work in New York City, he began practice of medicine in Florence in 1907.

Dr. Allen remained in active practice until 1947; and for 10 years prior to this time was associated with his son, Dr. E. M. Allen, Jr. and later also with another son, Dr. James Allen.





## BLUE CROSS . . . BLUE SHIELD



There is no reliable answer to the question, What are the prospects for American doctors and the American public to continue to work together to provide and to receive first-class medical care without governmental interference? However, it is evident that the foes of independent medical practice on a fee-for-service basis are becoming more vocal again. The number of Americans who shall have the costs of medical care paid by the Federal Government is rapidly expanding. Much of this, and particularly medical care for military dependents, will be on a fee-for-service basis with free choice of physicians. Fees will run into big money, and there is sure to arise sooner or later a demand for a reduction of costs to the Government by some type of insurance or other group contract.

There is developing a mass of statistics and opinions which try to show the high cost of our present system as compared with that of a system of salaried medical men working in group practice or for some other employer organization. Blue Cross and Blue Shield have been the bulwark of our defense against those who would destroy our present system of practice. They have been successful in holding back the demand for socialized medicine by many powerful forces, solely because these associated plans have had a positive program of approach to the problems of furnishing good care at a price the public can pay.

However, complaints and dissatisfactions with Blue Cross and Blue Shield are mounting. With much justification, it is claimed that benefits are not broad enough in coverage nor valuable enough in dollars to meet the needs of the people.

The cost of every phase of medical care has increased tremendously, but also has our individual and national economy. We are living in what is called an inflationary era. The cost of living in the United States is the highest it has ever been. That is not a fact to grumble over, for the increase in the cost of living is many times offset by increased personal and business incomes. Our level of living is higher than it has ever been before, and interestingly enough it has accelerated in reverse order of income. This is reflected in every type of buying and selling. It is, perhaps, best illustrated by the automobile market. Small, cheaply appointed cars are no longer being made — there is no buyer demand for them.

Families with incomes of \$5000 and over comprise 32% of the population. They incur 46% of all charges in the nation's total health bill. That being the case, Blue Shield is not being realistic when it fixes the upper income limits for service benefits at less than \$5000. The principal facet in Blue Cross and Blue Shield philosophy is the payment of the entire hospital and doctor's bill in any covered illness. When one-third of the population has a family income of more than the upper income limit for service benefits, several

things result. The fee allowances are low to correspond with fees which would be charged low income groups. Since the fee allowance does not approximate a fair normal fee for the more prosperous third of the population, the doctor is not only unwilling to accept the Blue Shield allowance as full payment for his services, but he is tempted, perhaps, to fix his fee too high and to give the patient the impression that he is charging a high fee in addition to the Blue Shield allowance. His inclination to overcharge is strengthened by the use of de luxe hospital accommodations and special nurses. Both the doctor and the patient are likely to become more or less embittered, and mutual good will is impaired.

Students of prepaid hospital and medical insurance are rapidly coming to believe:

1. The low-cost market for inferior and incomplete sickness-insurance coverage is shrinking rapidly.

2. The market for more expensive, broader, and more complete coverage on a service basis is expanding rapidly.

Just as the market for inexpensive automobiles seems to be gone, so is the market for sickness insurance which insures only the nearly medically indigent.

It will be wise, it seems to me, for our Blue Plans to realize immediately these facts of life and to fill the void that is developing between the near indigent and the wealthy, and to offer the family with an income of \$5000 or \$6000 a contract which will give them more nearly adequate coverage on a service basis, backed by a fee schedule which will pay the doctor a fee commensurate with the ability of the patient to pay and with the luxuries he demands when he is sick.

South Carolina Blue Cross has already taken steps to provide a first-rate type of group contract. The reception this contract is receiving is enthusiastic. Interestingly enough, the first question asked by the prospective purchaser is not how much it will cost, but instead what the new coverages are.

Blue Shield has taken preliminary steps to offer a high-type alternative group contract with increased income limits for service benefits, a much more adequate fee schedule, and greatly broadened coverage including, perhaps, inpatient medical care on a service basis.

Medical care costs the average family 4 to 5 per cent of family income. The total health bill in 1953 was about \$10.2 million. However, this was less than the money spent for recreation, and much less than was spent for alcohol and tobacco. In spite of the complaints, the amount spent for medical services is not comparatively excessive. The rub comes from the fact that medical expense bits with a bang. It does not come in half-pint or simple-package sizes. The

(Continued on Page 451)



*Presentation of a plaque honoring the memory of Dr. W. L. Pressly by the South Carolina Medical Association to the Medical College of South Carolina. Left to right—Dr. K. M. Lynch, who accepted the plaque for the College. Dr. Grier, who presented it, and Dr. C. N. Wyatt, whose committee arranged for the plaque and ceremony.*

THE SOUTH CAROLINA MEDICAL ASSOCIATION HONORS DR. W. L. PRESSLY, PRESIDENT IN 1941.

At the annual meeting of 1956 the Association decided to present to the Medical College a plaque honoring the memory of Dr. W. L. Pressly. A committee headed by Dr. C. N. Wyatt of Greenville carried out the desires of the Association and procured a handsome plaque which was presented on November 1, 1956. Dr. Wyatt presided at the ceremony. The plaque was presented by Dr. Grier and accepted by Dr. Lynch. The addresses made were as follows:—

#### ADDRESS BY DR. R. C. GRIER OF GREENVILLE

There are some for whom the bells continue to toll; the radiance of whose lives remains in genial afterglow long after the visible life has gone behind the western horizon. Such is the life of the man in whose honor we now sit in reflective remembrance.

To me it is an honor to share with you this memorial exercise of one who from boyhood till the end was my friend. The professional stature of William Lowry Pressly was not an accidental achievement. In his being flowed the blood streams of an honorable parentage, John L. Pressly and Josie Legal Pressly, the father being for many years Professor of Greek in Erskine college. Into their son's life were woven the warp and woof of a sturdy Christian structure. Integrity and character and worthy purpose were the guide posts by which his life was directed. Born December 2, 1886, his life span was 68 years at the time

of his departure, September 27, 1954. To his marriage union with Miss Elma Lipscomb of Roanoke were born two daughters, Albertine and Josie, and one son, Smith.

His early education was in the village school of Due West: His formal education at Erskine college; his professional education at Atlanta Medical College, now Emory University. His practice of medicine began in Due West in 1917, when the population of the village was about 700. His services soon radiated to all parts of the county and eventually touched through medical organizations the health interests of the nation.

He was a man before he became a physician. Evidencing in young manhood a sincere interest in people, he continued through the years to have a vital part in the civic welfare of his community. As a citizen he served on the board of health of the village: as chairman of the school board of Due West he rendered a constructive service to the educational life of the area: as a Member of the Board of Erskine College his guidance was most helpful: as Chairman of the Board of Deacons in the Associate Reformed Presbyterian Church he was a wise counsellor and a strong supporter: as college physician he touched the lives of thousands of young people in our southern section. In every worthy civic effort, whether it had to do with securing electric power, water service, or encouraging town beautification, we could always count on Dr. Buek, as he was affectionately called. He was not the type citizen who sits on the fence and points out the

deficiencies and faults of the town: he got down on the ground and went to work to remedy conditions. During the war as Procurement Officer he rendered an invaluable service to his nation. His natural love for the soil found expression in activities of farming and cattle raising. His barn yard, where the lordly turkey strutted and the cock heralded the new day, where the pigeons whirled aloft till resting in the shelter of the barn, these with the assistance of his handyman Charlie afforded him relaxation and renewal. Charlie today is the beneficiary of one of the farms.

Interested as he was in all these things, he never forgot that he was primarily a doctor. Early and late, at noonday or midnight, he went. Never was a day so wearying or a night so long but that, when he entered a sick room, his very countenance conveyed courage to the patient, white or black, rich or poor, learned or ignorant. They were all his care.

His goings throughout the county were not without difficulties. Entering practice just following the "horse and buggy" days, he found roads which at times were well nigh impassable with axle deep mud. Chains were standard equipment. I have seen him come in from the Hog Skin section of the county with car so mud bespattered that its color was scarcely discernable. Before farm to market pavement he dared not get out of the ruts of the narrow dirt road, and when he met an oncomer someone had to back up. Yet, the closing years of his practice saw him in a splendid office with modern equipment and a staff of able assistants, and with county roads making possible swift dispatch to the sick.

Following the decision of the AMA in 1948 to designate him "Family Doctor Of The Year", the village and the countryside turned out to do him respect. To the dinner in his honor a great crowd from the town and countryside gathered to recognize the worth of the home town boy who had served them so well. At the convocation, following the dinner, people from far and near were present, old and young, black and white, to show their appreciation. Following the remarks made by his fellow townsmen and representatives of the medical profession he was invited to speak. I had never seen him before when words found so much difficulty in getting beyond his Adam's Apple. The most profound silence I've ever witnessed in an assembly occurred when in speaking about the inquiries coming to him from people all over the nation, people, who interpreted his being designated Family Doctor of the year, as meaning that he knew all there is to know in medicine. The point at which he broke was when he said: "Mothers are writing me about their children". At this point the throat blockade occurred: but he quickly recovered and said: "Had a letter from a man in Texas saying: Doc, can you do anything for the itch? I've been to all the doctors out here and they aint done me no good". The tension was eased. 'Twas a night in Due West long to be remembered. It is not strange that in his honor, soon after this occasion,

was installed a bronze plaque on the outside wall of his office with this inscription:

"IN HONOR OF  
WILLIAM LOWRY PRESSLY, M. D.  
IN RECOGNITION OF THE DISTINCTION  
ACCORDED HIM ON DEC. 2, 1948  
BY  
THE AMERICAN MEDICAL ASSOCIATION  
IN DESIGNATING HIM  
FAMILY DOCTOR OF THE YEAR  
ERECTED BY THE CITIZENS OF DUE WEST  
COMMUNITY"

There it stands today and will stand: a silent testament of the love and devotion of a grateful community, to their Country Doctor.

While qualifying under the above description, he was a man who constantly kept abreast in the latest findings of research and practice. Amidst all of his local duties he found time frequently to attend medical meetings, clinics and refresher courses dealing with improved techniques in surgery, the latest discoveries in pharmaceutical drugs and improved methods in the healing art. Long before the formal advent of psychosomatic therapy he was practicing it. He realized that not all physical disorder is referable to organic derangement nor to the invasion of devouring germs. He sensed the delicate relation between the physical and the psychic and through all his practice he gave place to the wisdom long ago pronounced by the son of Bathsheba: "A merry heart doeth good like a medicine". His entrance to a sick room was like lifting the shades to let the sunshine in. He knew the way to the heart even when the focal ailment was elsewhere. His penetration of the patient's spirit enabled him to reach trouble spots where no antibiotic could go. He was kinsman to the doctor of whom Macbeth inquired concerning his wife: "Canst thou not minister to a mind diseased, pluck from the memory a rooted sorrow, raze out the written troubles of the brain, and with some sweet oblivious antidote cleanse the stuffed bosom of that perilous stuff which weighs upon the heart?" Enjoying as he did the confidence of his patients, involuntarily he invited a patient's disclosures of hidden things, the very verbal release of which gave ease. To an unusual degree he was able to sit where they sat, and share sympathetically their woes. "Teach me to feel anothers woe, to hide the faults I see; That mercy I to others show that mercy show to me:" this to him was more than a poem, it was a prayer.

The Friend of Man who trod the foot paths and dirt roads of Palestine was his friend, and in his village practice he sought the help of the Great Physician, who in the days of his flesh, went about doing good, and when flesh and heart did faint and fail he and his brother, the Rev. J. P. Pressly, the village minister, having attended the body to the edge of this life knew how to aid the patient in committing his spirit into the hands of the Good Shepherd. who long ago, and now, assures his own that the Valley of the Shadow of



WILLIAM LOWRY PRESSLY

Death is a sustained and fearless way that leadeth unto life.

**ACCEPTANCE OF TABLET TO  
DR. WILLIAM LOWRY PRESSLY  
BY DR. KENNETH M. LYNCH**

Dr. Grier, Dr. Wyatt, members of the family and friends of Dr. William Lowry Pressly, best and lovingly known as Buck:

While this moment carries a note of sadness, and although we cannot eliminate that from our emotions about a recently departed friend, the nature of this memorial transcends sentiment of personal nature.

There are two other facets to this memorial that I would like to emphasize in accepting this tablet: first, the appropriateness of its location here by reason of Dr. Pressly's labors in medical education in general and his relations with this institution in particular; second, the symbolism in thus memorializing a medical practitioner in a manner that should and may serve to stimulate those who carry on now and hereafter to understand that service in the profession of medicine can and should carry further than just from doctor to patient.

In 1949, I had the privilege and pleasure of serving

as the agent of the Medical College of South Carolina in conferring an honorary degree of Doctor of Public Health upon Dr. Pressly, in the course of which I spoke the following citation:

"William Lowry Pressly, doctor and practitioner of medicine, humble and unassuming; servant of your profession, your state and nation in war; peaceful servant of your people always; public official in the protection of the public health; guardian of standards and promoter of progress in medical education and service; good neighbor; loyal friend; counselor of the troubled; physician extraordinary."

I shall always remember the emotion plainly expressed on his face as he listened, and perhaps for the first time came to believe what he had become.

We shall locate this tablet in a place where the recruits of the profession will see it constantly. Some who read it may reflect upon what it means, and gain incentive. Thus it will serve not merely as a record of our estimate of Dr. Pressly but as a part of the over-all environment that we try to produce and maintain; an environment which should provide the student not just routine course and classwork opportunity but with a sense of complete devotion, even of

self-sacrificing kind, to the service of mankind. Medical education has come to the time when it is the responsibility of the educational institution to provide a total environment aimed at service giving and not merely material success.

It is an honor to the Medical College of South Carolina to be selected as the place for the South Carolina Medical Association to deposit this memorial to one of its prominent and beloved members. It is a privilege to accept it, and to hope that the special significance it shall serve to continue forever the good done by Dr. William Lowry Pressly for his fellow man.

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## BLUE CROSS — BLUE SHIELD

(Continued from Page 447)

Blue Plans provide an opportunity to spread the cost; but for them to appeal, the contract must provide adequate coverage and payment in full, else it will not meet the needs of the times.

J. Decherd Guess, M. D.  
Medical Director

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## NEWS

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Dr. Thomas M. Rivers of New York City, formerly vice president of the Rockefeller Institute for Medical Research, has been appointed medical director of the National Foundation for Infantile Paralysis.

He succeeds Dr. Hart E. Van Riper, who is leaving the National Foundation on October 31 to become medical director of Geigy Pharmaceuticals of Ardsley, N. Y. Dr. Van Riper joined the National Foundation staff in 1945 and became medical director in 1946.

Eli Lilly and Company has announced the suspension of the fifteen-month clinical trial of carbutamide, or BZ-55. Carbutamide is a sulfonamide derivative which controls many cases of diabetes when given by mouth.

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### SALK SHOTS SPEED UP PUSHED IN S. C.

The State Board of Health has launched a program to speed up Folio Immunization through Salk Vaccine. So far only 40% of the nearly one million eligible of the group through 19 years of age have taken even one shot. Dr. G. S. T. Peeples, State Health Officer, says there is an adequate supply of vaccine for all and blames parents for laxity in getting their children protected.

The annual meeting of the Pee Dee Medical Association was held in Florence on October 18, 1956. An address on *Diagnostic Methods in Cardiac Disease* was given by J. Scott Butterworth, M. D., Professor of Medicine (Cardiology), New York University Postgraduate Medical School.

Drs. Albert J. Baroody and Ernest Lee Wooten of Columbia were recently made Diplomates of the

American Board of Obstetrics and Gynecology.

The American Diabetes Association a few years ago established a Board of Governors, similar to that of The American College of Physicians.

Doctor Robert Wilson of Charleston has been appointed Governor for the State of South Carolina for the 1956-57 organizational year.

Two Sumter physicians and a dentist were elected to the Board of Directors of the South Carolina Division of the American Cancer Society for 1956-57 at the annual meeting of the division's membership. Named to the board were Dr. Robert Bultman, Dr. Haynes Barre and Dr. A. W. Howell, all of Sumter.

Dr. C. C. Horton of Pendleton was elected president of the Piedmont Post Graduate Clinical Assembly at the 21st annual meeting. He succeeds Dr. George R. Wilkerson of Greenville.

Other officers named were: Dr. Clyde S. Bowie of Anderson, executive vice-president; Dr. Rufus Nimmons of Seneca, Dr. Hunter May of Greenwood, vice-presidents; Dr. Ned Camp of Anderson, secretary-treasurer, and Dr. William Hunter, Clemson, registrar.

Doctors of the Myrtle Beach area subscribed to 10 per cent of a \$250,000 goal set to complete and equip Ocean View Memorial Hospital.

The action was taken at a dinner kicking off the fund drive. Dr. Morris Fishbein, internationally known writer and speaker on medicine and hospitals, addressed an estimated 400 persons at Ocean Forest Hotel.

Dr. W. S. Chapman acted as spokesman for the physicians who made the \$25,000 pledge.

At a recent meeting of the South Carolina Chapter of the American Academy of General Practice held at the Clemson House, Dr. Charles N. Wyatt of Greenville, was elected president. Other officers are Dr. Homer M. Eargle, Orangeburg, president-elect; Dr. I. Ripon Wilson, Charleston, vice-president. Mr. Horace M. Whitworth, Greenville, secretary-treasurer, and Dr. J. H. Cuthin, Easley, director.

The group took action toward setting up a memorial loan fund honoring the late Dr. W. L. "Buck" Pressly, Due West, who was selected by the Anderson Medical Association as the 1948 Family Doctor of the Year.

The academy plans to sponsor the self-perpetuating fund. The plan discussed would require the raising of \$5,000 from this group and also from all doctors in South Carolina. A maximum of \$500.00 would be available to South Carolina students above the freshman level at the Medical College of South Carolina.

In the beginning the fund would not take care of more than one student a year. A requirement would probably be that the recipient would agree to two or three years practice in a community of 5,000 or less.

It will probably be at least a year before the fund is operating.

Lt. Benjamin Lewis Barnett, Jr., U. S. Naval Reserve, has been given a certificate of achievement for "performance of outstanding service as medical officer."

The certificate was presented to Dr. Barnett at his home on E. Georgia Street by Commander W. E. Reader, officer in charge, U. S. Recruiting Station, Columbia.

It commended him for his services at the Armed Forces Examining Station at Nashville, Tenn., from Oct. 6, 1954, to July 24, 1956.

"Lt. Barnett successfully coordinated the activities of his section with those of the four branches of the service—Army, Air Force, Marine Corps and Navy—for which physical examinations were performed to the complete satisfaction of all concerned," the certificate read in part.

Dr. Barnett is a practicing physician in Woodruff.

Dr. W. T. Barron, President of the Richland County Medical Association, and Mrs. Barron were honored by the Women's Auxiliary to the Association at a dinner dance at Forest Lake Country Club, October 17.

Dr. James Lauderdale Bryson is announcing his retirement as director of the Fairfield County Health Department, a post he has filled since 1928.

He received his M. D. degree from Atlanta Medical College in 1915. He served his internship in New York City and in Philadelphia.

Dr. Bryson was an early volunteer in World War I, trained at Camp Sevier in Greenville and served overseas for three years. He held the rank of captain. After the war, he worked with the United States Health Department before returning to Winnsboro upon the death of his father.

Dr. J. H. Gressette of Orangeburg, S. C., was elected president of the South Carolina Society of Ophthalmology and Otolaryngology which ended a postgraduate convention in Asheville on September 19.

Other South Carolina Society Officers named were Dr. R. P. Jeanes of Easley, vice president; and Dr. Roderick MacDonald of Rock Hill, treasurer.

The Seventh Annual Meeting of the South Carolina Chapter, American College of Surgeons was held in Charleston on November 16 and 17, 1956. Dr. F. E. Kredel, Charleston, presided. Speakers were T. G. Brown, Jr., Ph. D., Charleston, Vernon Jeffords and L. L. Brown, Charleston, Randolph Bradham, Charleston, Paul W. Sanders, Charleston, Edwin Boyle, Jr., Charleston, James P. McQuown, Greenwood, Richard L. Jackson, Conway, Louie B. Jenkins, Charleston, Edward F. Parker, and J. D. Ashmore, Charleston. Officers of the Chapter for 1955-1956 are President, Dr. E. F. Parker, Vice President, Dr. L. H. McCalla, and Secretary-Treasurer, Dr. F. T. Wallace.

## REPORT OF A DELEGATE TO THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION IN CHICAGO, 1956

The results of the polls of the different state medical associations on the subject of the coverage of physicians under "Old Age and Survivors Insurance" revealed two generalities:

1. Physicians are against compulsory coverage and
2. Seem to be in favor of voluntary coverage for physicians.

Questions asked varied from state to state so no comparison could be drawn. Massachusetts voted unanimously in favor of compulsory coverage and it was discovered later that the local Social Security employees had done a swell selling job — they pointed out that more money had been collected every year than had been paid out, but they failed to mention that the last ten million people to be covered had just come in and that under no amount of financial juggling can one justify paying 50 cents and receiving \$24.00 in return. This has outdistanced the Townsend Plan by so much that they cannot be compared. The cost of Social Security will continue to go up every five years until 1970 when it is *hoped* that income and outgo will level off. If anyone really wants the facts on this important phase of our socialized life he should write Dr. Frank Dickinson of the A. M. A. staff. He is the economist for the A. M. A. and has gone into the subject more thoroughly than a physician has time to do.

New York state medical society tried to change the "one quarter rule". This rule states that if a hospital fails to get one fourth of its required quota of interns it will lose its accreditation. This made sense to a lot of us, but we could not change it. There are several thousand more internships than there are interns so it's impossible for every vacancy to be filled every year.

There was one subject on which all the delegates had been thoroughly informed by Obstetricians. The Council on Medical Education and Hospitals disapproved all straight internships except those in medicine, surgery, pathology, and pediatrics. The section on Obstetrics and Gynecology was ably represented by Dr. Ralph H. Campbell. He asked that all straight internships be discontinued but until such time as they are that straight internships in Ob. and Gyn. be allowed. This seemed reasonable, but a compromise was worked out in reference committee whereby every hospital should work toward eliminating straight internships and toward one year of rotating internship for every physician. It was suggested that progress in this direction be reported once a year to the House of Delegates.

A resolution asking the Board of Trustees to set up a revolving fund for medical students was referred to the Board of Trustees. Money may be loaned at a reasonable rate of interest. There shall also be a committee to screen all applicants before granting a loan.

The House of Delegates awaits the report of the Board on this worthwhile project.

The Speaker of the House was instructed to appoint a committee to make a recommendation concerning the use of isotopes in medicine. According to the original policy only those physicians certified in radiology and therapeutic radiology may supervise the use of radium or radioactive isotopes. This seems a rather narrow thinking when the use of those products has been so widely employed.

Commendation was sent to the Sears, Roebuck Foundation for the assistance it has given to medical practitioners and medicine in general.

One resolution which was defeated was to have a physicians Health Check-up Week. The House of Delegates was in full accord but felt that that should be handled locally. Have you had a complete physical check-up this year?

The report of Dr. Charles Wyatt on the Civil Defense Program at the meeting in Chicago has been given elsewhere. The House of Delegates went on record as expressing its grave concern of the complete state of unpreparedness as regards civil defense. It also urges all physicians and local and state societies to participate and indeed take the lead wherever necessary to establish and maintain active civil defense programs.

The House voted to recommend that the Veterinary Corps be maintained. The Veterinaries add valuable knowledge of meat and radioactive effects on all food-stuffs.

The House voted to urge all state and county medical societies to encourage High School Science Fairs wherever they can be established. One of the great deficits of our age is the lack of interest in science.

Four states together introduced a resolution to review the entire subject of taxation with especial reference to income taxes. The reference committee side-stepped this one with the advice that every physician make an individual effort to bring this about. It perhaps is not wise to go too far afield in the activities of the House from a purely medical area.

A resolution advocating electoral reform was introduced by one of us from South Carolina and it was referred to the Board of Trustees. The House of Delegates has voted its approval of the Bricker amendment and surely that is no closer to medicine than electoral reform or income taxes. A similar resolution was introduced by Texas.

Because of the unsound actuarial basis of the entire Social Security system and because our children and their children will be paying for what we are now spending, a nationwide study of the entire Social Security system was urged. Congress is urged to appoint a committee to make this survey. It was also urged that physicians take the lead in local communities in local study groups to discuss the facts of this system that our representatives in Congress have voted into effect.

American Medicine and private enterprise suffered

a severe defeat when H. R. 7225 was passed. One of our senators indicated that he was with the medical profession, the other staunchly maintained that he was for the bill — and he was and he has further stated that he is for reducing the age at which disabled persons would receive payments.

As has been done at every meeting of the House of Delegates for the past eighteen months, The U. S. Government was requested to return the general wholesale and retail purchase of the Salk vaccine to normal commercial channels.

Another resolution asking each state society to establish a committee to work with the proper authorities of each state to encourage safe driving on the highways. The medical profession sees the results of improper driving more than any other group and so is in a position to take the lead in education of the people.

A report of the Board of Trustees to encourage all agencies dealing with cancer to continue and expand their activities in order that neoplastic diseases may be better understood and cared for was heartily endorsed by the House.

The council on Constitution and By-Laws has made an exhaustive study of ethics in the medical profession. After a great deal of work and consultation with the Judicial Council, the chairman presented to the House a new "Principles of Medical Ethics". This is shorter, simpler, broader, and much less specific. Principles are not laws. They are simply to serve as guides to the members of our profession. The Judicial Council has pledged itself to more detailed interpretation whenever desired. Unless there is a great deal of objection, which so far has not been in evidence, the new Principles will be adopted in Seattle in December.

The following are the dates and places of the annual meeting of the American Medical Association:

- 1957 New York, June 3-7
- 1958 San Francisco, June 23-27
- 1959 Atlantic City, June 8-12
- 1960 Chicago, June 6-10
- 1961 Recommended that it be held in New York.

Clinical Sessions:

- 1956 Seattle, Nov. 27-30
- 1957 Philadelphia, Dec. 3-6
- 1958 Minneapolis, Dec. 2-5

A committee went thoroughly into the activities of the Joint Committee on Accreditation of Hospitals and came up with important recommendations. It is interesting that a great deal if not most of the criticism heaped upon this important commission was due to a misunderstanding of its function and its composition. This little report is much too brief to go into great detail so only the conclusions will be given. Anyone who cares for a more complete version may get it printed in full in the Journal of the A. M. A. The conclusions are:

1. Accreditation of hospitals should be continued.
2. The Joint Commission should maintain its present organizational representation.

3. The Board of Trustees should report annually to the House of Delegates on the activities of the Joint Commission.

4. Physicians should be on the administrative bodies of hospitals.

5. General practice sections in hospitals should be encouraged.

6. Staff meetings required by the Joint Commission are acceptable, but attendance requirements should be set up locally and not by the Commission.

7. The Joint Commission should not concern itself with the number of hospital staffs to which a physician may belong.

8. The Joint Commission is not and should not be punitive.

9. The Joint Commission should publicize the method of appeal to hospitals that fail to receive accreditation.

10. Reports on surveys should be sent to both administrator and chief of staff of hospital.

11. Surveyors should be directly employed and supervised by the Joint Commission.

12. Surveyors should work with both administrator and staff.

13. New surveyors should receive better indoctrination.

14. Blue Cross and other associations should be requested not to suspend full benefits to non-accredited hospitals until those so requesting have been inspected.

15. The American Medical Association should conduct an educational campaign for doctors relative to the functions and operations of the Joint Commission.

16. The Committee also suggests that the American Medical and the American Hospital Association encourage educational meetings for hospital boards of trustees and administrators either on state or national levels to acquaint these bodies with the functions of accreditation.

17. This Committee asks to be discharged upon submission of this report to the House of Delegates.

The House also approved a reference committee suggestion that the following statement be added to strengthen the report:

"The Committee recommends that the commissioners to the Joint Commission on Accreditation of Hospitals, appointed by the Board of Trustees of the American Medical Association, urge that Commission to study:

1. The problems of the exclusion from hospitals and arbitrary limitation of the hospital privileges of the general practitioners, and 2. Methods whereby the following stated principles may be achieved:

"The privileges of each member of the medical staff shall be determined on the basis of professional qualifications and demonstrated ability.

"Personnel of each service or department shall be qualified by training and demonstrated competence,

and shall be granted privileges commensurate with their individual abilities."

On Federal Aid to Medical Schools, the House reaffirmed its position of approval of a one time so called "brick and mortar" grant, but disapproved of repeated or continuing grants for salaries.

Beginning July 1, 1956, all specialty journals as well as J. A. M. A. are published outside the A. M. A. headquarters. This policy was wisely adopted because of a number of reasons. Obsolescence of equipment, increased cost of operation, lack of space, were among the chief reasons for changing. Lack of space for new activities was probably the biggest single reason.

From a financial standpoint 1955 was a good year. Income in excess of expenses for 1955 amounted to \$454,023.00 compared to \$235,432.00 for 1954. Hence, the motion to increase dues was happily killed. The A. M. A. gave another \$100,000.00 to the American Medical Education Foundation. This brings to a total of \$2,200,000.00 in contributions from the A. M. A. The Illinois state medical society presented a whopping \$164,940.00 to the Foundation.

It is interesting and important to note that the Washington office of the A. M. A. cost \$207,227.00. It is essential now that the medical profession be ably represented on Capitol Hill. It isn't a question of whether we should go into politics, we are in and we'll be forced to stay. Indeed, it would surprise me if that office were not enlarged considerably in years to come.

In a thorough report by a committee on Private Practice by Medical School Faculty members it was urged "that it shall be the policy of the American Medical Association that funds received from the private practice of medicine by salaried members of the clinical faculty of the medical school of hospital should not accrue to the general budget of the institution and that the initial disposition of fees from medical service from paying patients should be under the direct control of the doctor or doctors rendering the service."

It was further urged that liaison between the faculty and the local medical society be maintained in a friendly and proper manner and that publicity emanating from both be in the best interest of the community involved.

#### Election of Officers:

President-Elect—Dr. David Allman, Atlantic City

Vice-President—Dr. F. S. Crockett, LaFayette, Ind.

Secretary—Dr. George F. Lull, Chicago

Treasurer—Dr. J. J. Moore, Chicago

Speaker—Dr. E. Vincent Askey, Los Angeles

Vice Speaker—Dr. Louis Orr, Orlando, Fla.

Dr. Julian Price was re-elected without opposition to the Board of Trustees and Dr. Hugh Hussey was elected with lots of good opposition to succeed Dr. Allman. Dr. Robertson Ward of San Francisco was elected to the Judicial Council to succeed Dr. Walter F. Donaldson.

Dr. Price had a painful experience with his back and

FOR POSITIVE DIURESIS

# ROLICTON<sup>\*</sup>

- oral b.i.d. dosage
- continuous control of edema

The new, highly effective oral diuretic, Rolicton, greatly simplifies the task of maintaining an edema-free state in the patient with congestive heart failure. Rolicton meets the criteria for a dependable diuretic: continuous effectiveness, oral administration and clinical safety.

In extensive clinical studies the diuretic response clearly indicates that a majority of patients can be kept edema-free with Rolicton. In these investigations it was noted that side reactions were uncommon. When they did occur they were usually mild.

In most edematous patients Rolicton may be employed as the sole diuretic agent. When used adjunctively in severe cases, Rolicton is also valuable in eliminating the "peaks and valleys" associated with the parenteral administration of mercurial diuretics.

One tablet of Rolicton b.i.d., after meals, is usually adequate for maintenance therapy after the first day's dosage of four tablets. Some patients respond well to one tablet daily. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.



<sup>\*</sup>Trademark of G. D. Searle & Co.

SEARLE

was hospitalized for a few days. A friend wired him to the effect that he knew Julian was carrying a heavy load and that he might crack up, but he didn't think it would be his back.

(To Be Concluded)

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## BOOK REVIEWS

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**ROENTGEN SIGNS AND CLINICAL DIAGNOSIS.** By Isadore Meschan, M. A., M. D., Professor and Director of the Department of Radiology, Bowman Gray School of Medicine. Cloth \$20.00. Pp. 1018, with 2216 illustrations, 780 figures. W. B. Saunders Co., Philadelphia, 1956.

This book was written as a text for medical students, radiology residents, and physicians other than radiologists. The approach is different in that the abnormal roentgen findings are grouped; and the reader is coached in a differential diagnosis of that type of finding. For instance, lesions of the lung are broken down into nodular densities, linear densities, etc. Under the latter headings are given short pathologic and radiographic descriptions of scleroderma, congestion, etc. There are many who would disagree with this method of teaching medical students, stating that it would be better to add to their knowledge of the pathology of specific diseases, a knowledge of the common radiographic findings, emphasizing the value of radiology in the diagnosis and prognosis of these diseases.

In 1018 pages the author covers the common diseases of all of the organ systems, and most of the rare diseases. As a result the work tends to be oversimplified and sometimes dogmatic.

The chapter on physics and mechanics of radiography is poor, as compared with a pamphlet readily obtainable from the Eastman Kodak Company. Fundamental concepts, such as the inverse square law and the effect of kilovoltage on film contrast, are barely mentioned.

The many diagrams are excellent in giving a quick, clear summary of the findings seen in the many pathologic states which lend themselves to such representation. The section on bones is introduced by an excellent summary of normal and pathologic bone physiology. In spite of the controversial approach and the several shortcomings which are largely due to the short space allotted, this text should be of value to medical students and clinicians as a handy, quick reference. First year radiology residents trying to progress in an unfamiliar specialty will find the book of help.

F. H. Gruber, M. D.

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**CRYPTOCOCCOSIS.** M. L. Littman, M. D., Ph. D. and L. E. Zimmerman, M. D. Grune & Strat-

ton, New York, 1956. Price \$8.50.

The first of a promised series of monographs on the individual systemic mycoses, this volume on one of the most widespread and insidious of these diseases brings up to date information that was largely treated previously by Cox and Tolhurst in "Human *Torulosis*", published in 1946. The present volume is based on reports of more than 300 cases, as compared with about 120 known 10 years ago, and is thoroughly up to date, including 504 references to the literature. The newer knowledge includes recent improvements in technique, especially the use of various special tissue stains, as well as epidemiological and immunological advances. The essentials of laboratory diagnosis are presented comprehensively and succinctly, although there is some confusion as to whether *C. neoformans* grows more rapidly or more slowly on brain-heart infusion blood agar than on Sabouraud's and Littman's media. An exhaustive treatment is given of the dismal panorama of therapeutic failures in cryptococcosis, and emphasis is placed upon the importance of early surgical excision of localized lesions.

The authors have made extensive use of their access to records and photographs of the Armed Forces Institute of Pathology (over 100 cases) and their comprehensive treatment of clinical and pathological aspects includes a remarkable collection of clinical and histopathological photographs, x-rays and clinical data. Differential diagnosis is emphasized. There are excellent color plates illustrating macroscopic and microscopic pathology and special tissue stains. The book should be especially valuable to the pathologist, neuropathologist, chest specialist and diagnostician, as well as to the medical mycologist.

Morris A. Gordon, Ph.D.

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## DEATH

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### DR. CARL BELDEN EPPS

Dr. Carl Belden Epps, 74, dean of Sumter physicians, died at Tuomey Hospital after an illness of several months.

Dr. Epps was born in Williamsburg County, March 7, 1882. After attending schools of that county he entered the University of South Carolina, then South Carolina College, from which he was graduated in 1903. He then entered the Medical College of South Carolina, from which he received his M. D. degree in 1911. From time to time he pursued further study in his profession at several of the Northern and Midwestern universities. He was a fellow in the American College of Surgeons and a member of the Sumter County Medical Association.

For many years he was actively interested in politics and served one term in the House of Representatives from Sumter County.

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## PEDUNCULATED SUBMUCOUS FIBROMYOMATA

(Continued from Page 439)

infection has completely disappeared.

### Summary

A case of an infected pedunculated, submucous, fibromyoma that was extruded

through the external cervical os is presented. The danger of infection was emphasized and vaginal removal stressed.

### REFERENCE

- (1) Carter, Bayard; Jones, C. P.; Alter, R. L.; Cradick, R. N. and Thomas, W. L. Bacteroides Infections in Obstetrics and Gynecology, Obs. and Gyn 1:491, 1953.





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MERRY CHRISTMAS  
AND A  
HAPPY NEW YEAR



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*Finish*  
*the Job!*

**JOIN THE  
MARCH OF DIMES**  
IN JANUARY

---

# SCISSORISMS

---

## RESURRECTIN

Resurrectin was discovered accidentally by Prof. Futtskible while on a jungle expedition. He was fortunate to witness a tribal ceremony in which a native chief, who had died 3 days before, was rubbed vigorously with a gummy substance. Miraculously the chief was resurrected and devoured a whole hog after which he seized 3 native wenches and dashed pell-mell into his hut where he remained busy for a whole week. Futtskible was astonished at this miraculous drug and after much effort succeeded in obtaining a small amount of the gum.

The chemistry of Resurrectin is interesting. Structurally it is a die-alpha-try-ammo, 7-11-tetra-gumbo, 3 penta-hickory-dickory-4 roto-manuro. It thus closely resembles tripe and old guano.

Its pharmacology is truly miraculous. It is a synergist-anticatalyst with double antitensive potentialities. It will potentiate anything potential. Small doses act as a retractive-prolapser with anti-anaraetic tendencies but in larger doses it can act as an expansive with contractive properties. It thus elevates and depresses at the same time as it broadens and narrows. This has been called the roller-coaster reaction but can be disregarded. Resurrectin also acts as a stimulo-relaxant and as a sedato-bouncer of considerable magnitude, in fact more potent than a jug of White Mule. In anemia it stimulates iron formation to the point where tiny nails can often be found circulating in the cap-

illaries. These can usually be extracted with a powerful magnet. In females where disinclination and resistances are pronounced Resurrectin is a highly successful bifurcant and Futtskibble was highly pleased with the results of his experiments among the more negativistic females. In small doses it produces vaginal flutter and in larger amounts can cause quite an uproar. Taken in place of meals the drug is an anti-obesant and will reduce corpulency to skeletal proportions. If continued, it will reduce the skeleton to calcium and phosphorus, 2 valuable minerals. At today's inflated prices for minerals this should be kept in mind. Resurrectin is bacteriocidal in both broad and narrow spectra and Futtskibble has found that it will dissolve the organism, the culture media, the petri dishes, the incubator and, in a few regrettable instances, the girl technicians as well. Futtskibble avoided the latter catastrophe by engaging only male technicians.

The efficacy of Resurrectin staggers the imagination; yours and mine. Prof Futtskibble, the great benefactor of mankind, has spent years in experimentation with this truly miraculous miracle drug and has contributed a host of articles to the *Bull of Medicine* (Vol. 1-99), in which his researches have found a final resting place. In the next article this author proposes to publish pertinent extracts of the *Bull*, revealing the indefatigable energy of the old Professor.

—Arthur M Kraut, M. D. in  
*Current Medical Digest*, Sept. 1956



*Title: Dr. Isaac Auld of Edisto Island Died 1827.*

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